

Current History

A WORLD AFFAIRS MONTHLY

OCTOBER, 1976

THE SOVIET UNION, 1976

SOVIET MILITARY CAPABILITIES	<i>John Erickson</i>	97
SOVIET-AMERICAN RELATIONS	<i>Alvin Z. Rubinstein</i>	101
MOSCOW AND THE ARAB-ISRAELI SECTOR	<i>O. M. Smolansky</i>	105
THE SOVIET ECONOMY	<i>Robert C. Stuart</i>	109
SOVIET ENERGY RESOURCES AND PROSPECTS	<i>Leslie Dienes</i>	114
THE TWENTY-FIFTH SOVIET COMMUNIST PARTY CONGRESS		
	<i>Robert G. Wesson</i>	119
SOVIET SOCIETY TODAY	<i>Paul Hollander</i>	123
BOOK REVIEWS • <i>On the Soviet Union</i>		127
THE MONTH IN REVIEW		139
MAP • <i>The Soviet Union</i>		Inside Back Cover

Current History

FOUNDED IN 1914

OCTOBER, 1976
VOLUME 71 NUMBER 420

Editor:

CAROL L. THOMPSON

Assistant Editors:

MARY M. ANDERBERG
JOAN B. ANTELL
VIRGINIA C. KNIGHT

Contributing Editors:

ROSS N. BERKES
University of Southern California
RICHARD BUTWELL
State University of New York
O. EDMUND CLUBB
U.S. Foreign Service Officer (retired)
HANS W. GATZKE
Yale University
MARSHALL I. GOLDMAN
Wellesley College
NORMAN A. GRAEBNER
University of Virginia
OSCAR HANDLIN
Harvard University
STEPHEN D. KERTESZ
University of Notre Dame
RICHARD H. LEACH
Duke University
NORMAN D. PALMER
University of Pennsylvania
CARROLL QUIGLEY
Georgetown University
JOHN P. ROCHE
Fletcher School of Law and Diplomacy
A. L. ROWSE
All Souls College, Oxford
ALVIN Z. RUBINSTEIN
University of Pennsylvania
FREDERICK L. SCHUMAN
Portland State University, Emeritus
RICHARD VAN ALSTYNE
University of the Pacific
COLSTON E. WARNE
Amherst College, Emeritus
ARTHUR P. WHITAKER
University of Pennsylvania, Emeritus

President and Publisher:
DANIEL G. REDMOND, JR.

Vice President:
ELBERT P. THOMPSON

Published monthly (combined issues July/August) by Current History, Inc., 4225 Main St., Box 4647, Phila., Pa. 19127. Second class postage paid at Phila., Pa., and additional mailing offices. Indexed in *The Reader's Guide to Periodical Literature*. Individual copies may be secured by writing to the publication office. No responsibility is assumed for the return of unsolicited manuscripts. Copyright © 1976, by Current History, Inc.

Coming Next Month

AFRICA, 1976

Our November issue will analyze and evaluate changing conditions in the nations of Africa, where black nationalism, white apartheid policies and great power rivalries have created serious tensions. Articles include:

Africa and the Great Powers

by WALTER A. E. SKURNIK, University of Colorado

Africa and the Arab World

by RICHARD E. BISSELL, Foreign Policy Research Institute

Rhodesia

by RICHARD W. HULL, New York University

Angola and Mozambique

by THOMAS H. HENRIKSEN, State University of New York at Plattsburgh

South Africa

by CHRISTIAN POTTHOLM, Bowdoin College

Ethiopia

by JOHN G. MERRIAM, Bowling Green University

Nigeria

by LEVI A. NWACHUKU, University of Michigan

Botswana and Namibia

by RICHARD DALE, Southern Illinois University, Carbondale

\$1.50 a copy • \$13.50 a year
Canada \$14.50 a year • Foreign \$15.00 a year
Please see back cover for quantity purchase rates.

NO ADVERTISING

Property of
AMBASSADOR COLLEGE LIBRARY
Big Sandy, Texas

Current History

OCTOBER, 1976

VOL. 71, NO. 420

Political, economic and social conditions in the Soviet Union are discussed in this issue by seven specialists in their fields. How powerful is the Soviet Union today? As our introductory article points out: "There can be no doubt that the Soviet Union maintains the largest military establishment in the world and that it is growing."

Soviet Military Capabilities

BY JOHN ERICKSON

Director of Defence Studies, University of Edinburgh

WHAT IS A MILITARY build-up? Does it signify the immediacy of resort to war, is it a means to fend off or meet such an onslaught, or does it rather signal some long-term but indeterminate process, even bureaucratic mindlessness, in the propagation and management of complex weapons programs? And, in view of the relativism of military strength, what is the relationship between one man's build-up and another's rundown?

The short answer is that a military build-up can be all these things (and many others, to boot); but the focus of the question here is "the Soviet military build-up" and its contribution to Soviet military capabilities, a qualification which may seem simple enough but which nevertheless begs a fundamental question. Do we mean "a Soviet build-up" or "*the* Soviet build-up?" In view of present excitement over Soviet military programs, the distinction is neither pedantic nor irrelevant.

In any event, pedantry has its uses. The pedant would properly insist that, essentially, Soviet society has long been embarked on a permanent military build-up, certainly since the first of the five-year plans launched in 1928. He would also point to the

relevance of Russian as well as Soviet historical experience, which has relied on mass or large numbers as a traditional method of approaching military problems. He might note, with added perversity, that perhaps one of the most potent Soviet secret weapons has been the virtual exclusion of civilian advisers and self-styled experts from the military process.

In the West, few serving soldiers write extensively and professionally on defense matters for general consumption: in the Soviet Union it is only soldiers, with rare exceptions, who do.

There are other impediments to understanding Soviet military programs—one of the greatest being an overall lack of understanding of the Soviet military system. That is to say, we ask (and answer dogmatically) questions of the Soviet system which we do not ask and cannot answer of our own. Consider, for example, military manpower: a recent controversy has compared gross United States and Soviet figures, which are certainly imbalanced in favor of the Soviet Union (4.4 million as opposed to the United States level of 2.1 million, in round figures) but these are reduced to virtual parity by removing the "non-threatening" element from the Soviet manpower pool.¹

Nor are we done with all impediments. If it is true that the Soviet military build-up has long been under way (a proposition to be examined in a moment), then astonishing tardiness has been shown in perceiving it. To this must be added a curious selectivity in lighting on particular features of the "build-up" which suit momentary purposes and, finally,

¹ See John W. Finney in *The New York Times*, April 24, 1976, on the manpower estimates prepared by Representative Les Aspin (D., Wis.) and "supported by estimates of the Defense Intelligence Agency": the "comparable opposing forces" work out as 2,045,000 (Soviet) and 2,009,000 (U.S.), though there appears to be no reference to actual deployment or to the Soviet ordering of *deployed effectives* (as in the groups of forces in east-central Europe).

official policies that are seemingly geared to keeping Soviet secrets secret²—an excellent example being furnished by discussions of the defense of Europe, all in the absence of any published map of Soviet deployments or a reliable table of Soviet order of battle (with its five armies in East Germany—2nd Guards Tank Army, 8th Guards, 3rd Shock, 20th Guards and 1st Guards Tank Army, supported by the 16th Air Army).³ Public cynicism and academic bemusement have not much to distinguish them at times.

Precisely for reasons of constricted space, let me advance my argument *tout court*. Allowing for the impress of historical preference and experience (Russian and Soviet alike), the Soviet military build-up as we have come to know it began in the late 1950's (accompanied by an upturn in military expenditure) and has been followed by "a military build-up" with specific and important modernization phases imposed on it rather in the fashion of Dean Swift's fleas—a factor which accounts for the complex periodization and differing time scales. As for a Soviet criterion, General V. I. Kulikov (Chief of the Soviet General Staff) in his latest article in *Kommunist* has provided a useful measure applicable not only to the overall outlines of Soviet military policy but also to its detailed aspects⁴—in short, that *effektivnost'* (be it "effectiveness," "efficiency," "efficacy" or simply good

² On intelligence and secrecy, see a recent review of Captain John E. Moore, RN, "The Soviet Navy Today" in *The Naval Review* (London), July, 1976, p. 279: "Nor is it helpful to seek refuge from the questions of the genuinely sceptical [and there are many such] laymen in the undergrowth of 'classified information.'" Incidentally, this was not a criticism aimed at Captain Moore, editor of *Jane's Fighting Ships*.

³ See *supra*. I am privy to no secrets and this is perforce my own estimate: five armies (three tank if 3rd Shock is included, two motor-rifle armies) with 20 divisions—10 tank and 10 motor-rifle—amounting to 370,000 men, 7,000 main battle tanks, over 3,000 infantry fighting vehicles (with a little more than one-third the modern BMP's), 133 helicopters and some 900 combat aircraft of 16 air army, requiring only reinforcement with a tactical bomber element to bring it up to full operational war strength. These are just "numbers": much deeper analysis can show a variety of interesting features about this and other "groups of forces" (northern in Poland, central in Czechoslovakia), but taking GSFG and Central Group together they can field some 200 battalion-size combat groups, and so on.

⁴ Army General V. Kulikov, "Sovetskaya voennaya nauka sevodnya," *Kommunist*, no. 7 (May, 1976), pp. 38–47. (It is useful to compare this with an earlier article by General Kulikov, "Sovetskie vooruzhennye sily i voennaya nauka," *Kommunist*, no. 3 (1976), pp. 76–88.

⁵ For a comparison of U.S.-Soviet strategic nuclear force levels, see Appendix A in Robert L. Pfaltzgraff, Jr., and Jacquelyn K. Davis, *SALT II: Promise or Precipice?* (Miami: University of Miami, 1976), pp. 40–41 (and "Strategic Defense Forces," p. 42).

⁶ In the absence of a general history of the Soviet armed forces, there is nevertheless useful data in *50 let vooruzhennykh sil USSR* (collective authorship) (Moscow: Voenizdat, 1968), pt. IV, ch. 10–11, pp. 477–516; See also H. S. Dinerstein, *War and the Soviet Union* (New York: Praeger, 1959 and 1962), *passim*.

performance) that seems so to preoccupy the Soviet command.

The gross figures speak for themselves. Over the past decade the Soviet ICBM (intercontinental ballistic missile) arsenal has grown from a mere 224 to some 1,600 strategic missiles whose throw-weight and accuracy have increased dramatically with each new generation of weapons. Submarine-launched ballistic missiles (SLBM's) once amounted to a paltry 29 and now number almost 800, with 58 nuclear-powered submarines whose latest SLBM, the SS-N-8, outranges all other such missiles by no less than 1,600 nautical miles. The current total of Soviet ICBM/SLBM warheads has jumped from a few hundred to over 3,400, a figure which can double (and virtually treble) depending on the options selected by the Soviet command for MIRV-ing its latest ICBM's, the SS-17, SS-18 and SS-19 (not to mention the yield of these independent warheads, which is in the megaton range as opposed to kilotons for comparable U.S. vehicles). Although a "bomber gap" still exists between Soviet and United States forces, the new Soviet BACKFIRE-B strategic bomber is now in squadron service and a substantial fleet (in excess of 200) seems to be envisaged by the Soviet command.⁵

As for strategic defense, the Soviet anti-ballistic missile (ABM) system, with 64 launchers deployed around the Moscow "national command center," is undergoing further development, with improved radars and two missiles under test, one described as tactical and the other identified as a "high accelerator interceptor system." That same Moscow region also houses the heavily hardened Soviet command centers, subterranean headquarters so far utilized by the Soviet leadership in frequent exercises to test "survivability." Other hardened HQs are dispersed throughout East Europe, the Soviet hinterland and in the People's Republic of Mongolia.

In more recondite but feasible conditions of war-making, Soviet preparations for chemical warfare are both impressive and advanced. At least 40 Soviet dumps contain chemical and biological agents, with 140 training areas where Soviet troops practice under chemical warfare conditions (and 300 additional sites, many of them in east-central Europe, which could be used for the same purpose).

From strategic missiles to chemical weapons there seems to be an unrelieved prospect of numerical expansion, modernization and technological improvement. The impress is upon and toward a war-fighting capability, first seriously developed in the mid-1950's⁶ and thus signaling the Soviet military build-up, despite the fact that the Soviet military, which had writhed under Joseph Stalin's paranoia, soon came to squirm under Nikita Khrushchev's eccentricities. The fascination of the Khrushchev period lies in the conflict between military realism and

political manipulation in relation to Soviet military power: with Khrushchev discarded (and with him his "cheap deterrent," which combined ineffectualness with the threat of permanent Soviet strategic inferiority), "a military build-up" was begun.⁷

The yawning gap between Soviet objectives and capabilities had to be closed. At the same time, the credibility of the Soviet "deterrent" had to be restored, although it was to be "deterrence" combined with "defense" which was active and "directed primarily against the enemy's means of nuclear attack." The latter could only mean a powerful build-up in Soviet ICBM forces, even as the Soviet command paid the closest attention to the survivability of what was still a very limited strategic potential. Hardening and dispersal of strategic targets, experiments with mobile missiles and an ABM system, even sending the missile to sea in submarines, all led in the direction of securing something like a protected "second-strike" force in the mid-1960's.

This achieved, the Soviet command — having prodded the political leadership—loosed its drive for "parity" with the United States and pushed on toward numerical advantage. With this actually codified by the SALT-I agreement in 1972 (whereby the Soviet Union was conceded a 40 percent numerical lead in ICBM's and one-third more SLBM's, as well as a major advantage in missile throw-weight),⁸ there was a related build-up in general purpose forces capable of operating in a conventional as well as a nuclear environment. Ironically enough, Soviet military thinking had been obliged to make its own spurt in order to take in the growing flexibility and increased options furnished by this diversification.

⁷ See that excellent work by Thomas W. Wolfe, *Soviet Strategy at the Crossroads* (Cambridge: Harvard University Press, 1964), esp. ch. 5, ch. 8, ch. 11 (on the "duration-of-war theme") and ch. 13.

⁸ Donald G. Brennan, "When the Salt Hit the Fan," *National Review*, June 23, 1972, pp. 685-692; see also summary of testimony to a subcommittee of the House Committee on International Relations by Henry S. Rowen, "Implications of SALT Agreement Detailed," in *Aviation Week and Space Technology*, September 15, 1975, p. 52, and September 22, 1975, p. 51.

⁹ On the "doctrine of military superiority," see ch. 7 in Wolfe, *op. cit.*, pp. 79-90; also my own summary of Soviet evidence in *Soviet Military Power*, RUSI (London), 1971, pp. 42-46; see also Paul H. Nitze, "Assuring Strategic Stability in an Era of Detente," *Foreign Affairs*, January, 1976, on a "Soviet-initiated counterforce strike against the United States," esp. p. 226.

¹⁰ At the end of the decade (1960's), the ICBM force structure consisted of some 240 SS-9, 800 SS-11, 40 SS-13 and 220 of the older SS-7 and SS-8.

¹¹ General George S. Brown, USAF (Chairman, JCS), *United States Military Posture for FY 1977*, January 20, 1976, p. 42.

¹² See Edgar Ulsamer, "The Soviet Juggernaut . . .," *Air Force*, "Soviet Aerospace Almanac 1976," March, 1976, p. 58 and p. 61.

In this program for strategic power, the Soviet insistence on "assured survival capability" stands out, as does the emphasis on the principle that "deterrence" unsupported by "defense" is both lunatic and irresponsible. This illustrates the lack of congruence between Soviet and American views on strategic programs. The thrust toward "parity" (although nowhere are the concepts of either "parity" or "essential equivalence" formally accepted in Soviet pronouncements) was a move away from Khrushchev's "minimum deterrence," which did not and could not provide the means to deny the United States a first-strike capability, in view of the latter's missile superiority. The development of a genuine Soviet seaborne strategic strike system (with the Y-class boats carrying 16 SLBM's) also closed another gap, that of hitherto unilateral American advantage in any "post-exchange balance." Nuclear war, which had been "unthinkable" under Khrushchev precisely because of the lack of a war-waging capability, now became "thinkable"—though the real question was and is still whether such a war is "winnable."⁹

The ICBM program embodied "battlefield" principles, providing the means to destroy the enemy's military capability through strategic bombardment. The SS-9 (the core of the build-up in the 1960's) was a huge and aimed at United States missiles, while the SS-11 (which formed the greatest numerical component in the ICBM force) and the SS-13 now allowed the Soviet command the option of realistic selective strategic targeting, combining counter-force with counter-industrial and counter-value strikes.¹⁰

This "bombardment" philosophy has been carried over into the ICBM modernization program, now made far more formidable by the Soviet exploitation of advantages in both numbers and throw-weight (both dismissed earlier in somewhat facile fashion as being of little relevance). Large numbers mean more launchers; bigger missiles mean more warheads, MIRV's in abundance. In terms of a hard-target kill capability—and the new Soviet SS-18 can destroy any known fixed target—an advantage of "even 1,000 warheads has considerable strategic significance."¹¹ Recent Soviet ICBM development demonstrates the quest for just such a capability and advantage.

What is even more chilling is the apparent inexorability of the Soviet ICBM program, which since the 1960's has shown fixed cycles of design development, testing and deployment—a relentless momentum never slowed by the SALT-I agreement and which now accounts not only for the four new ICBM systems presently being deployed but projects a further ten, not to mention two further SLBM's.¹² In reducing unilateral United States advantage, both the "technology gap" (in MIRV's) and the "bomber gap" are being closed. At the same time, the use of arms

control negotiations as an inhibitor of United States programs has been brought to a fine art in the SALT-II talks; Soviet pressure is directed against the TRIDENT system, the B-1 bomber and the United States cruise missile program, all the while keeping the Soviet BACKFIRE-B bomber out of the "strategic counting."¹³ The Soviet understanding of "sufficiency" is coming to signify an exponential growth in "advantage," rooted as this is in the assumption that SALT-I gave the Soviet Union a numerical advantage over an indefinite period. By the same token, Soviet "violations" of SALT-I, while they are substantial, are legitimized after a fashion by the very ambiguities and the vacuity of that initial agreement, fur-

¹³ Under the proposals of January, 1976, the United States suggested "collateral restraints" on the deployment of the BACKFIRE (even while allowing 240 of them); the Soviet Union excluded the BACKFIRE and reduced the "collateral restraints"; similarly, the Soviet Union proposed that air-launched cruise missiles (ALCM's) be restricted to ranges of 1,000 miles and all United States strategic bombers carrying 10 or more ALCM's to be counted *within* the ceiling figure of 1,320 for MIRV.

¹⁴ Although strenuously denied by Soviet authorities, these violations have been systematically identified and chronicled in *Aviation Week and Space Technology*; see Clarence A. Robinson, Jr., "Soviet Treaty Violations Detected" (AWST, October 21, 1974), on mobile ABM radar system, the concealment of missile silo work, interference with electronic monitoring of Soviet ICBM tests, concealment of submarine building; also the deployment of SS-20 missiles (AWST, May 31, 1976); also Soviet sea trials with the four enlarged DELTA-II missile submarines with the SS-N-8 SLBM's *before* dismantling their older land-based ICBM's (SS-7 and SS-8), thus violating SALT-I by the excess number of SLBM's (AWST, May 24, 1976).

¹⁵ The SS-20 appears to be something of a problem missile. One version with a lightweight warhead has a range bringing it into the ICBM category (with a range between 3,100 and 4,000 nautical miles), with a 300 lb. warhead (50-75 kilotons), although an earlier version with a 1.5 megaton warhead (1,000 lbs.) had a restricted range, in the order of 1,500 nm and therefore liable to be classed an intermediate-range missile. However, the SS-20 with multiple warheads is also reported as a replacement for IRBM's and MRBM's (100 SS-5 and 500 SS-4) targeted on West Europe and areas of East Asia. The SS-4 and SS-5 force is being replaced on a "one-for-one" basis, even though the SS-20 is now MIRVed. See *Flight International*, August 7, 1976.

¹⁶ See Colonel A. T. Altunin (Chief of Civil Defense, Deputy Defense Minister), "Kompleksnye ob'ektovye ucheniya," *Sovetskii Patriot*, September 24, 1975.

¹⁷ In the fashion of Dean Swift's fleas, this is a bulge upon a bulge, the ICBM deployment accounting for an increase in an increased Soviet military budget. A recent Central Intelligence Agency study released by the House Armed Services Committee (and summarized in AWST, May 24, 1976), dealing with Soviet military expenditure, shows cyclical swings in annual spending on the Strategic Missile Forces (and Air Defense), with the Soviet Air Force being the greatest net beneficiary and the Soviet Navy virtually constant (18 percent of gross expenditure) between 1970 and 1975. The Soviet Strategic Missile Forces have gained by some three percent over the period 1970-1975 in terms of gross expenditure. See also Andrew W. Marshall, "Estimating Soviet Defense Spending" (extract from statement), reprinted in *Survival* (I.I.S.S. London), 1976, no. 3, pp. 73-79.

ther torn by ruthless Soviet unilateral interpretation.¹⁴

The annual deployment rate of new Soviet ICBM's is climbing to 200, with more than 150 of the latest SS-17, SS-18 and SS-19 ICBM's now emplaced; the SS-16 must be classed as a potent ICBM thanks to its improved range and could also be land-mobile. (The SS-20, an intermediate range ballistic missile, is coming into service with the missile force targeted on West Europe and is evidently being MIRV-ed, thus rapidly modernizing that force component, which in any event is not covered by the SALT agreements.)¹⁵ Meanwhile, Soviet strategic air defense (*PVO Strany*) is being both strengthened and modernized, including some 2,600 interceptors, 12,000 surface-to-air missiles (on 10,000 launchers) and 5,000 radars.

Of late, much greater attention has been paid to Soviet civil defense (*Grazhdanskaya obrona*), which has come under the command of Deputy Minister of Defense A. T. Altunin and has been described by some as the "sixth arm" of the Soviet armed forces.¹⁶ This "survivability" program, including evacuation schemes, shelter building, dispersal of industry and stock-piling, is designed to lower the casualty rate to an "acceptable" level of some 7 million-12 million (less than the gross Soviet casualty rate for World War II, it might be noted).

Although there was much talk in the mid-1960's about "balance" in Soviet force structures, priority went to the strategic offensive forces. During the period 1973-1975, the "bulge" of one to two percent in gross Soviet military expenditure was due to the deployment of new ICBM systems, which (like Air Defense with its dependence on aircraft and missiles) has tended to follow a cyclical pattern.¹⁷ Nevertheless, one underlying trend has been steadily strengthened, namely, preparation to wage and to win any campaign at any level of weapons. It must also be added that Soviet effort, once designed to support only a "short war," has now been extended to cover a variety of commitments and contingencies. (It is worth noting in passing that the "short war/long war" controversy represented one of the most interesting manipulative enterprises undertaken by the Soviet military leadership to press their claims over force levels.)

Although they have by no means regained their former preeminence, the Soviet Ground Forces have recovered astonishingly from the fate imposed on

(Continued on page 128)

John Erickson is the author of numerous books and articles on Soviet and East European military history and military affairs. His latest book is *Road to Stalingrad: Stalin's War with Germany*, vol. 1 (New York: Harper and Row, 1975.) In 1971-1972, he was Lees-Knowles Lecturer at Trinity College, Cambridge.

"Only if the United States concentrates on improving relations with West Europe and Japan and on working to assure the stable and just functioning of an economic order that also encompasses key nations of the third world will the Soviet Union come to realize that it stands to benefit more from cooperation than from fueling regional arms races and imperial rivalry."

Soviet-American Relations

BY ALVIN Z. RUBINSTEIN
Professor of Political Science, University of Pennsylvania

THE LAST FEW YEARS have not been good for Soviet-American relations. The period of optimistic expectations for détente, promisingly ushered in with the signing of the SALT I agreement in Moscow in May, 1972, and the round-robin of summit visits in 1972 and 1973, has ended. A number of developments account for the increasingly tense relationship: the near confrontation during the fourth Arab-Israeli war in October, 1973; the resignation of United States President Richard Nixon in August, 1974; the months of uncertainty that followed the military coup in Portugal in April, 1974, and saw the Portuguese Communist party come close to gaining effective control of the country; the unwillingness of the United States Congress to extend long-term credits to the Soviet Union and Moscow's consequent abrogation of the economic agreement reached with Nixon for the repayment of World War II lend-lease debts; the fall of South Vietnam in April, 1975; and the sustained Soviet military build-up.

Once the election in the United States is over, the administration may devote more attention to the major hurdles blocking improved relations with the Soviet Union. A reassessment will take place at a time when the Soviet government may also be undergoing leadership changes. (Age and illness are beginning to take their toll in the Kremlin, as was evident by the death of Marshal Andrei Grechko, the Minister of Defense, in April, 1976.) In ordering their priorities, both leaderships will remain sensitive to the constraints imposed by their domestic, regional and global commitments and objectives.

HELSINKI

The Conference on Security and Cooperation in Europe (C.S.C.E.), held in Helsinki from July 29 to August 2, 1975, was 21 years in the making. The Soviet government first proposed the idea in 1954.

Its principal objective was to obtain Western recognition of the territorial status quo in Europe. Although the final declaration signed by the 35 participating states does not have the force of a formal treaty, it has gone a long way toward fulfilling this Soviet objective. As far as Moscow is concerned, the pertinent section states:

The participating states regard as inviolable all one another's frontiers as well as the frontiers of all states in Europe, and therefore they will refrain now and in the future from assaulting these frontiers.

In addition to confirming the political inviolability of Europe's post-1945 geographical boundaries, the declaration signified the West's acceptance of the division of Germany. Shortly thereafter, there was widespread diplomatic recognition of East Germany, and the two Germanies were admitted into the United Nations.

C.S.C.E. was possible because the Ford administration decided to support it on the basis of two assumptions: that the declaration, which merely recognized the existing reality in Europe, would not harm American interests, and that, after he had obtained this coveted diplomatic triumph, Soviet Communist Party Secretary Leonid Brezhnev would be more amenable to SALT II.

At the insistence of the West European governments, C.S.C.E. commits the Soviet Union to a number of liberal humanitarian political goals. Its "basket three" (each of C.S.C.E.'s four committees was called a "basket") calls for freer movement of peoples; the favorable consideration of "applications for travel with the purpose of allowing persons to enter or leave their territory temporarily, and on a regular basis if desired, in order to visit members of their families"; and wider dissemination of information and culture of all kinds.

To evaluate the implementation of these and other

humanitarian and cultural provisions, a conference is to be held in 1977, with the preparatory meeting scheduled for Belgrade on June 15, 1977. Judging by the Soviet government's crackdown on Soviet dissidents who have stated their intention of monitoring Soviet compliance, not much should be expected.

There is little in the declaration that directly relates to security for any of the participants. The only military item calls on all governments to give 21 days' notice, and to invite foreign observers, of military maneuvers involving more than 25,000 troops within 150 miles of their frontiers. Optimists believe that the declaration will help East European countries to assert a greater degree of autonomy from the Soviet Union; pessimists argue that it lends legitimacy to the Soviet domination of East Europe, without in any way promoting East-West détente. Criticism of Washington's adherence to the Helsinki Declaration became more pronounced as a result of Soviet policy in southern Africa.

THE ANGOLAN AFFAIR

A mini-crisis in Soviet-American relations developed in late 1975 in the wake of Angola's move toward independence. The first serious superpower rivalry in black Africa since the early 1960's, it marked the beginning of a new stage in the international politics of southern Africa.

The 1974 revolution in Portugal toppled the decades-old dictatorship and led to the end of Portugal's African empire. After more than 500 years, Portugal pulled out of Africa, granting independence to Guinea-Bissau, Mozambique and Angola. The absence of a clear-cut undisputed indigenous leadership in Angola drew the superpowers into the civil war that took shape in the months preceding the formal advent of Angolan independence on November 11, 1975.

Three Angolan groups competed for power. The FNLA (the National Front for the Liberation of Angola) was headed by Holden Roberto, whose main support came from neighboring Zaire. A moderate pro-Western in outlook and aims, Roberto proved to be ineffective in the intensifying struggle for power. UNITA (the National Union for the Total Liberation of Angola) was led by Jonas Savimbi, who waged an active fight on Angolan soil but whose appeal was limited to his fellow Ovimbundu tribesmen. The MPLA (the Popular Movement for the Liberation of Angola) is headed by Agostinho Neto, a Marxist. The MPLA seized Luanda (the capital) when the Portuguese pulled out and quickly extended its control over the country.

The Soviet Union began to ship significant quantities of arms to the MPLA in late 1974 in anticipation of the end of Portuguese rule, and the FNLA received covert aid from Western sources. Militarily, UNITA

was the most deprived of the groups. Western efforts to persuade all three groups to establish a coalition government failed, largely because the United States did not seriously press or consider these efforts until it was too late. In the summer of 1975, Cuban troops began to arrive to fight in support of the MPLA. When independence was formally proclaimed, the MPLA controlled the capital. The Soviet government promptly extended diplomatic recognition and airlifted substantial quantities of arms and thousands of Cuban troops. The Soviet Union and Cuba justified their actions on the grounds that South African mercenaries had intervened in the civil war and that the Soviet Union traditionally supports national liberation movements. Soviet arms included armored cars, tanks, jeeps, and batteries of 122-mm. ground-to-ground rockets, all manned by Cuban troops. Very quickly, these proved to be decisive. By early 1976, more than 10,000 Cuban troops had been airlifted to Angola and provisioned by the Soviet Union.

The covertly supplied Western arms proved too little and too late. The United States Congress, wary of another South Vietnam-type involvement, refused to support President Gerald Ford's belated request for open assistance to the FNLA and UNITA. Its decision was no doubt also influenced by the inept performance of Roberto's FNLA.

On a number of occasions, Secretary of State Henry Kissinger spoke out sharply against Soviet and Cuban intervention. Testifying before the Subcommittee on African Affairs of the Senate Foreign Relations Committee on January 29, 1976, he said:

The effort of the Soviet Union and Cuba to take unilateral advantage of a turbulent local situation where they have never had any historic interests is a willful, direct assault upon the recent constructive trends in U.S.-Soviet relations and our efforts to improve relations with Cuba. It is an attempt to take advantage of our continuing domestic division and self-torment. Those who have acted so recklessly must be made to see that their conduct is unacceptable.

Kissinger was concerned that the lack of United States resoluteness in the face of an open Soviet challenge would feed Moscow's imperial appetite and jeopardize United States efforts to establish a stable relationship with the Soviet Union. He feared that allies and friends of the United States would see the setback in Angola as further evidence of a post-Vietnam paralysis of political will, an American inability to counter Soviet expansionist activities. After the MPLA had completed the rout of its two rivals, Kissinger repeatedly declared that the United States government is not opposed to the MPLA as such but opposes Soviet and Cuban military intervention in African affairs.

The Soviet government maintained that support for the Angolan government was fully consistent with

its past support of African peoples' struggle "for freedom and independence," and that aid to national liberation movements to resist "neocolonialism" was not inconsistent with efforts to improve bilateral relations with the United States.

In terms of United States-Soviet relations, Angola had two short-term consequences. First, it led President Ford (who was facing a challenge in the Republican party primaries from former California Governor Ronald Reagan) to declare, on March 1, 1976, that he would henceforth not use the word "détente" in referring to United States efforts to improve relations with the Soviet Union because of the different interpretations that each party gave to the term. Second, it led Kissinger in late April-early May, 1976, to make his first trip to black Africa, in an attempt to find a basis of understanding with key African countries seeking to pressure the Rhodesian government into accepting a transfer of political power to the black majority; he wanted to reach this understanding before the Soviet Union and Cuba moved to underwrite the armed struggle that seemed likely to develop in southern Africa in the months and years ahead.

United States-Soviet tensions eased somewhat with the report in late May that Fidel Castro had written to Swedish Prime Minister Olaf Palme of his intention to withdraw Cuban soldiers from Angola within the year. Withdrawals have been taking place at the rate of about 200 a week. The Soviet Union, however, has announced that it will provide Angola with military and economic assistance. A joint communiqué issued in Moscow on May 31, 1976, at the end of Angolan Prime Minister Lopo do Nascimento's visit, called for the development and strengthening of closer ties between the U.S.S.R. and Angola.

Beyond the recent Soviet intervention in Africa, a troubling question confronts American policy makers: how far is the Soviet Union prepared to go in pursuit of its objectives in southern Africa and in the rest of the third world? Judging by Soviet behavior during the October War and the Angolan civil war, the answer seems to be far indeed. Efforts of the Soviet Union and the United States to reach an accommodation in other areas is complicated by their rivalry in the third world.

SALT II: STILL ELUSIVE

The strategic arms limitation talks (SALT) defy simple description. They are substantively extremely complex, continually giving rise to changes in bar-

gaining positions under the pressure of technological changes, and are stymied as much by politics within each country as by strategic calculations. The only reasonable certainty is that the negotiations will be with us, in one form or another, for many years to come.

SALT I was a partial success. Concluded in Moscow on May 26, 1972, it resulted in an anti-ballistic missile (ABM) treaty, limiting each side to 200—subsequently reduced to 100—anti-ballistic missile launchers, which could be deployed at only two sites, the capital and one offensive missile site. It also called for an interim five-year agreement, establishing limits on offensive intercontinental ballistic missiles (ICBM's) for each side. Neither bombers nor medium-range missiles were covered.

In retrospect, the main accomplishment of SALT I was the sharp curtailment of the deployment of ABM's; this saved billions of dollars in unbuilt missiles and radars. But technological developments heightened the need for new agreements. They also generated serious clashes in the bureaucracies of each superpower over the priorities to be assigned to the deployment of new weapons systems. In the United States, controversy rages over the cost-effectiveness of the B-1 bomber, the Trident submarine, and super-size nuclear-powered aircraft carriers. In fact, each side possessed a more awesome destructive nuclear capability in 1976 than in 1972.*

In November, 1974, at Vladivostok, President Ford and Soviet party leader Leonid Brezhnev incorporated the relevant provisions of the 1972 interim agreement (which is scheduled to remain in force until October, 1977) into a new interim agreement covering the period from October, 1977, through December 31, 1985. Far from putting a cap on the arms race as Kissinger claimed, the Vladivostok accord substantially raised the numerical limits on offensive delivery systems. Each side is permitted a total of 2,400 ICBM's, submarine ballistic missiles (SLBM's), and heavy bombers, of which up to 1,320 launchers (more than four times the ceiling the Pentagon originally sought to establish for Soviet deployment of MIRVed missiles) may be MIRVed.** Thus the total sanctioned destructive power allowed to each side has significantly increased.

The accord gives the appearance of equality, but it does not "deal with throw-weight—the most useful verifiable measure of relative missile capability, either MIRVed or unMIRVed."¹ Nor is there any definition of what constitutes a heavy bomber, nor any agreement on the cruise missile problem. These two items alone, both of which have become problems since SALT I, threaten to unravel the delicately balanced, painstakingly negotiated 1974 agreement.

The United States position is that the Soviet Backfire bomber should be included in the 2,400 total of

* See John Erikson's article on Soviet military capability in this issue.

** Missiles filled with multiple warheads are MIRVed.

¹ Paul H. Nitze, "Inside SALT 1 and 2," *Aviation Week and Space Technology* (February 24, 1975), p. 66.

delivery systems, since under certain conditions it can reach the United States. The Soviets maintain that the Backfire is a medium, not heavy, bomber, and they argue that the cruise missile, "which flies at low altitude and at slow speeds but is highly accurate, [should] be included in the totals if it had a range of more than 375 miles."² The United States says that at Vladivostok the two sides dealt only with ballistic missiles that fly at supersonic speeds beyond the atmosphere, and that therefore cruise missiles are not to be included. Compounding all these problems is the unsettled issue of verification: are the means of verification (i.e., photo reconnaissance space satellites) established in 1972 adequate for the MIRVed strike forces of the future? In the absence of a system of inspection, how is each side to know whether a missile has one nuclear warhead or six? The effort to reach agreement on strategic force levels continues.

PEACEFUL ENGAGEMENT

Since 1972, a series of agreements has taken place between the United States and the Soviet Union covering such diverse fields as culture, science, public health, space, housing, agriculture, oceanography and nuclear energy.

Two agreements are of sufficient importance to warrant brief discussion here: the United States-Soviet grain agreement of October 20, 1975, and the treaty limiting the magnitude of underground nuclear explosions for peaceful purposes, signed on May 28, 1976.

During the 1971-1975 period, Soviet grain production fell far below expected levels. This necessitated large-scale imports, mainly from the United States. Thanks to astute buying in 1972-1973 and poor United States reporting procedures, the Soviet government bought cheaply in the American market, and the United States government inadvertently subsidized Soviet grain purchases. To preclude the recurrence of such a situation, regularize commercial arrangements, and stabilize prices with a minimum dislocation of the American domestic market, the two governments concluded a five-year agreement in October, 1975, covering the period from October 1, 1976, to September 30, 1981. Under the agreement,³ the Soviet government will "purchase from private commercial sources, for shipment in each twelve-month period beginning October 1, 1976, six million metric tons of wheat and corn, in approximately equal proportions, grown in the United States." The U.S.S.R. may purchase an additional quantity of up to two million metric tons in any 12-month period

without consultation, unless "the United States has a grain supply of less than 225 million metric tons." All purchases and sales will be made at the market price prevailing at the time of purchase or sale and in accordance with normal commercial terms. In addition, the U.S.S.R. agrees to have a certain percentage of the grains shipped in American ships. Commercially, the agreement is advantageous to the United States.

The five-year treaty on underground nuclear explosions for peaceful purposes sets a ceiling of 150 kilotons for any single underground explosion or any series of explosions; and it allows a series of explosions totaling up to 1.5 megatons (1,500 kilotons). A system of on-site inspection is to be implemented if the yield exceeds 150 kilotons. For the moment, neither side seems likely to detonate explosions that would require implementation of the inspection procedures. American officials, however, believe that Soviet acceptance of the principle of on-site inspection is a potentially important breakthrough that could have a bearing on future arms control discussions. The treaty banning all underground nuclear explosions for military purposes, which was concluded in 1974 but has not yet been ratified by the United States Senate, does not contain any inspection provisions. These agreements, like dozens of others, fall into the general category of what might be called confidence-building measures. In the meantime, the arms race rumbles on.

On a number of occasions, Secretary of State Kissinger challenged critics of the administration's approach to détente to come up with alternative policies, thus implying that the current method of dealing with the Soviet Union is the best possible. Yet détente, as it developed under Presidents Nixon and Ford, has lacked coherence and has been remarkably insensitive to United States relationships with friends and allies.

Admittedly, détente encompasses a wide range of concerns, whose requirements and consequences are not necessarily congruent. Agreement on certain procedures and priorities, therefore, is all the more important. The United States government should stop giving away advantages in negotiating with the Soviets: eagerness for agreement is no substitute for

(Continued on page 136)

Alvin Z. Rubinstein, one of *Current History's* contributing editors, is the author of a number of books, including *The Foreign Policy of the Soviet Union*, 3d edition (New York: Random House, 1972), and *Yugoslavia and the Nonaligned World* (Princeton: Princeton University Press, 1970). He is the editor of *Soviet and Chinese Influence in the Third World* (New York: Praeger Publishers, 1975).

² *The New York Times*, April 11, 1976.

³ U.S. Senate, Committee on Foreign Relations, Subcommittee on Multinational Corporations, "U.S.S.R. and Grain," April, 1976, pp. 31-33.

"As for the U.S.S.R., it has proved itself incapable of extracting concessions from its political adversaries and, even more significantly, of controlling or influencing the actions of its clients."

Moscow and the Arab-Israeli Sector

BY O. M. SMOLANSKY
Professor of International Relations, Lehigh University

THE PAST 12 months in the Middle East have given the Kremlin leaders no cause for cheer. There have been no dramatic new "conquests," like the breakthrough in Libya the year before; instead Soviet prestige suffered a new blow when Egypt's President Anwar Sadat canceled the Friendship Treaty with the U.S.S.R. Moscow's problems were magnified by Syria's intervention in Lebanon, which strained relations with one of the Soviet Union's most valued Middle Eastern clients, and by the Kremlin's inability to break the impasse in the Arab-Israeli dispute.

Soviet-Egyptian relations, uneasy since the expulsion of most Soviet military advisers in July, 1972, continued to deteriorate in 1975-1976. There is no simple explanation for the sharp decline in the Kremlin's fortunes in Cairo—long regarded by the U.S.S.R. as the linchpin of its position in the Middle East—but the process has been conditioned primarily by Sadat's post-October, 1973, perception of his country's national priorities.

Topping the list is the Egyptian economy. The problems besetting it are so numerous and complex as almost to defy imagination. The rapidly growing population, the limited industrial base, inadequate land resources, the intensifying poverty of the peasants, and neglected public services—these are only some of the issues requiring the immediate attention of the Egyptian government. They are compounded by the demands of a heavy defense budget and the existence of a vast and inefficient bureaucracy.

Thus, in order to survive economically, Cairo requires a massive infusion of foreign capital and advanced technology. The former can be provided on a large scale only by the conservative Arab oil-producing states (Saudi Arabia, Kuwait, Qatar, Abu Dhabi) and Iran,¹ while the latter is best secured

from the West, especially the United States. Close association with Saudi Arabia—the world's largest oil producer—has the additional advantage of facilitating cooperation with Washington, which has traditionally maintained friendly relations with Riyadh and which, in the last analysis, is the only great power capable of exacting concessions from Israel. Moreover, both the United States and Saudi Arabia have been consistently suspicious of Soviet ambitions in the Middle East, an attitude that reinforces Sadat's own distrust of and dislike for the Russians.

In short, by 1975, a community of interests had emerged between Cairo, Riyadh, and Washington, resting on three major premises: efforts to effect a peaceful settlement of the Arab-Israeli conflict, close political and economic cooperation by Egypt and Saudi Arabia with the West, and the weakening of Egypt's dependence on the U.S.S.R. In going along with United States Secretary of State Henry A. Kissinger's "step-by-step" diplomacy and agreeing to the September, 1975, Sinai disengagement agreement, Sadat demonstrated both his disinclination for another confrontation with Israel and his desire to work closely with the United States. His Salzburg meeting with United States President Gerald Ford, in June, 1975, and his subsequent visit to the United States in October provided additional illustrations of Sadat's determination to cement ties between Cairo and Washington. Finally, he not only threw Egypt's doors wide open to foreign capital, but also encouraged the revitalization of the Egyptian economy's private sector.

Sadat's basic reorientation of Cairo's foreign and domestic policies was interpreted by the Kremlin as being aimed, in part, at deliberately weakening the Soviet positions in Egypt. Thus the U.S.S.R. responded in predictably negative fashion on several distinct levels: by drastically curtailing and delaying the delivery to Egypt of new weapons and spare parts; by forbidding New Delhi to supply Cairo with Indian-manufactured engines for the Soviet-made

¹ Strained relations with Iraq and, above all, Libya have precluded extensive cooperation with the "radical" oil-producers, which also include Algeria.

MIG-21 jet-fighters, the mainstay of the Egyptian Air Force;² and by refusing to accede to Sadat's requests for the consolidation and deferment of Egypt's debt to the U.S.S.R. (currently estimated at about \$4 billion). Moscow also mounted an extensive propaganda campaign criticizing Sadat's "deviation" from Gamal Abdel Nasser's time-honored foreign and domestic policies.

In an angry reaction, on March 14, 1976, Sadat called on the People's Assembly to abrogate the Soviet-Egyptian Friendship Treaty of 1971. The Assembly obliged the next day, and the document that Leonid Brezhnev had praised in his speech before the twenty-fifth party congress, in late February, 1976, as a "long-term basis for relations [which] conforms to the interests not only of our two countries but also of the entire Arab world" was torn up by a nation previously considered by many observers to be in the firm grip of the U.S.S.R. Another public insult was added on April 4, when Sadat announced that the Soviet Navy would no longer be allowed to use Alexandria's port facilities.

While underscoring the depth of the personal antagonism between Sadat and the Soviet leaders, the abrogation of the Friendship Treaty led to another, not widely anticipated, result. On April 21, Cairo and Peking signed a military protocol that provided for the delivery to Egypt of Chinese-made engines and spare-parts for the MIG-17 and -21 fighters.

It is important to note, however, that Sadat's decision to limit severely Egypt's dependence on the Soviet Union was not intended to result in a complete break between the two states. Given the magnitude of Egypt's economic problems as well as Moscow's involvement in many aspects of Egyptian life, total estrangement of the U.S.S.R. was clearly inadvisable. Conversely, while gravely disenchanted with Sadat, the Kremlin is not about to write off its enormous military, economic, and financial investments in Egypt. Political fortunes have a tendency to change rapidly in the Arab world. And the next generation of Egyptian leaders (if not Sadat himself) may develop different ideas about the desirability of reestablishing close political and military cooperation with the U.S.S.R. It is noteworthy that in its statement of March 16, 1976, occasioned by the abrogation of the Friendship Treaty, the Soviet government held Sadat responsible for "any consequences," but reiterated its intention to pursue a "principled, consistent policy aimed at developing friendly relations" with Egypt and her people.

A concrete manifestation of the unwillingness of both parties to burn all their bridges was offered by

² In the fall of 1975, Sadat turned to India and the Chinese People's Republic with requests for such assistance. While New Delhi turned him down, Peking initially offered a gift of 30 engines.

the signing, on April 28, 1976, of a new trade agreement between the two countries. It provides for exchanges that total £E 321 million (\$802 million) and maintains the U.S.S.R.'s position as Egypt's leading trading partner. Moscow also continues to underwrite the development of new and the enlargement of existing industrial and agricultural projects. (The Soviet-built iron and steel complex at Helwan is one major example of the on-going Russian involvement.) In addition, the Kremlin is assisting in the construction of a large aluminum plant in Upper Egypt as well as land reclamation and rural electrification programs. Moreover, several thousand Soviet engineers and technicians are still at work in Egypt.

Last but not least, there remains Cairo's major military dependence on the U.S.S.R. It is estimated that some 90 percent of Egypt's war matériel is Soviet-made. Its pilots, missile teams, tank crews, and other specialists have been trained in the use of Soviet weaponry. For this reason, even if other sources could be found to replace Russian-made equipment (an unlikely proposition because of the costs involved), several years would be required to retrain the Egyptian armed forces. (Chinese military assistance, while an important stop-gap measure, cannot be counted on to replace the Soviet weapons. For one thing, Peking's equipment is no match for the sophisticated United States arms now in Israel's arsenal.) In the meantime, Cairo remains greatly weakened, especially vis-à-vis an Israel strengthened by the generous military assistance provided by Washington in the post-1973 period. This disheartening (to Cairo) state of affairs assumed particular urgency after the collapse of United States Secretary of State Henry Kissinger's diplomacy and Sadat's failure to secure large-scale military assistance from non-Soviet sources. It is mainly for these reasons that the Egyptian President has recently toned down his anti-Soviet pronouncements and on some occasions has actually expressed himself in favor of re-normalizing relations with the U.S.S.R..

In short, Moscow's public condemnation of Sadat, while indicative of strong and genuine displeasure, is not likely to lead to major new punitive steps against Cairo. Instead, the U.S.S.R. can be expected to cling to its remaining Egyptian positions, hoping that Sadat or his successors will be forced by circumstances to revert to a pro-Soviet policy. Any such move would be greatly facilitated by the fact that the framework for close military and economic cooperation has remained intact.

SYRIA

While not nearly so dramatic as the reverses suffered in Egypt, in June, 1976, the U.S.S.R. ran into unexpected and potentially very damaging problems in Damascus. Before then, there had been no indi-

cations of a major disharmony. On the contrary, despite some differences, the two countries appeared to share a common attitude toward the Arab-Israeli problem or, more specifically, toward United States efforts at a peace settlement between Israel and the Arab states.

According to Syrian sources, the decision to oppose Kissinger's "step-by-step" diplomacy was taken by Damascus as early as October, 1974, when the Secretary of State informed President Hafez al-Asad that he expected to obtain only a "cosmetic" Israeli withdrawal from the Golan Heights. Additional causes for concern were provided by Cairo's decision to reach a separate agreement with Jerusalem and by the specific wording of the Sinai accord, which stipulated that the Arab-Israeli conflict "shall . . . be resolved [not] by military force but by peaceful means." In Asad's view, Egypt took it upon herself to speak for all the Arabs—an unacceptable proposition.

For these reasons, in 1975, Syria conducted a systematic campaign of opposition to United States diplomatic efforts in the Arab-Israeli sector, augmented by a stream of criticism of Sadat for allegedly betraying the Arab cause. It was this part of Asad's policy that earned him particular Soviet approval and support. Syria also endeavored to establish herself as Israel's chief Arab opponent, by attempting to organize a northern Arab front against Israel. Led by Damascus, this alliance was also to include Iraq, Jordan, Lebanon and the Palestine Liberation Organization (PLO). Asad hoped that the differences separating the allies could be resolved, close political and military cooperation could be established, and firm support secured from both conservative and radical Arab states as well as the U.S.S.R.

Initially, the Syrian President was reasonably successful in this ambitious undertaking. The Soviet Union, in appreciation of his anti-United States and anti-Egyptian policy (and moved, in part, by a desire to demonstrate to Sadat that it knew how to reward its friends), mounted a massive weapons supply program while withholding arms from Cairo. As a result, in 1975, Syria's armed forces were completely rebuilt and significantly strengthened. Soviet military aid was supplemented by economic assistance and acquiescence in Damascus' request for the postponement of payments on the Syrian debt to the U.S.S.R. On the Arab front, Asad was able to secure political and economic support from such disparate regimes as those of Saudi Arabia (upset by what she conceived to be a lack of United States pressure on Israel to make meaningful concessions to the Arabs), Kuwait, and Libya and Algeria (the latter two oppose *any* negotiations with Jerusalem).

In the more immediate area, in a major policy reversal, Asad established close political, economic, and (to a lesser degree) military cooperation with

Jordan. This rapprochement was made possible, in part, by the shared fear of both Damascus and Amman that, in case of another Arab-Israeli war, an attack on Syria would be launched not through the heavily fortified Golan Heights but through the sparsely defended northwestern region of Jordan.

Asad also made a concerted effort to improve Syria's traditionally tense relations with Iraq. Although both countries are governed by the national branches of the Ba'th party, severe political differences and personal antagonisms have precluded lasting cooperation. Moreover, Damascus and Baghdad have occasionally quarreled over specific issues, such as the dispute over the waters of the river Euphrates, whose flow Syria began to regulate in 1974 upon the completion of a Soviet-built dam. The ensuing accusations and countercharges, accompanied by troop movements to the frontier, did little to ease the tension.

In November, 1975, a temporary accommodation was reached when Syrian forces withdrew from the border, and it was reported that Iraqi tank units would be moved to the Golan Heights. This accord proved to be short-lived, however. As Damascus became directly involved in the Lebanese civil war, Iraq resumed her propaganda campaign against Syria, followed, in early April, by cutting the flow of Iraqi oil to the Syrian refinery at Homs.

To strengthen his position against Egypt, the United States and Israel, Asad also moved in another direction. In a brilliant diplomatic move, he identified Syria with the Palestinian cause and, in rejecting separate accords, demanded simultaneous progress on all problems dividing the Arabs and Israel: the Golan Heights, the West Bank, and the Palestinian question. It is unlikely that Asad expected United States and Israeli compliance with his wishes. He obviously believed that his initiative would enable him to isolate Egypt and to halt Washington's effort at piecemeal settlements in the Arab-Israeli dispute. Moreover, with Syria's emergence as the leading Arab spokesman for the Palestinian cause, the PLO (despite Yasir Arafat's strong misgivings about a partnership between two such unequal parties) had no choice but to subordinate itself to Asad's wishes. The new relationship was formalized in late 1975, when the PLO agreed to the creation of a joint military command which, in effect, meant Syrian control over the Palestinians.

In short, by late 1975, it appeared that Asad had established a northern Arab front against Israel in which Damascus played a dominant part. It is indeed ironic that some six months later this carefully constructed structure totally collapsed under the impact of the Lebanese civil war. At the time of this writing, Asad finds himself in a most unenviable position. Openly opposed by most other Arab states, he

is embroiled in hostilities with the Palestinians and the left-wing Lebanese. This dramatic about-face has earned Asad the blessings of the United States and Israel as well as the strong disapproval of the U.S.S.R.

LEBANON

Limitations of space do not permit a detailed analysis of the Lebanese civil war. Suffice it to say that its causes are many and complex and that the traditional religious animosity long rampant in Lebanon has been reinforced by serious political and socio-economic grievances shared by the majority of the country's non-Christian population and by its large Palestinian community.

Damascus' involvement in this tangled and explosive situation was based on Asad's perception of Syria's national interests. From the beginning of the civil war, he has advocated the existence of Lebanon as an independent Arab state in which the autonomous status of the Christian community would be respected by the Muslim majority and the PLO. Since, however, in late March, 1976, the so-called radical elements refused to heed Asad's advice and insisted on eradicating most of the political and economic privileges enjoyed by the Christian (mainly Maronite or Greek-Catholic) minority, he has felt compelled to control his erstwhile allies by moving Syrian units into Lebanon. He feared that, if given their way, the radicals would not only set up a leftist regime and establish close ties with Iraq and Libya (both of which Asad distrusts) but might also draw Syria into an unwanted confrontation with Israel.

Ironically, Asad's decision to intervene made it necessary to readjust Syria's policy toward the United States and, indirectly, toward Israel. More precisely, Damascus had to make certain that Asad's move would not be followed by the Israeli occupation of southern Lebanon, a step Jerusalem said it would take if it became necessary to safeguard Israel's national security. The only way such an action could be prevented was through coordination of Syrian actions with United States policy. As it happened, Washington, too, shared Asad's basic concern over the radicalization of Lebanon and thus was willing to urge restraint upon Jerusalem. Once Israeli leaders became convinced of Asad's determination to reduce the effectiveness of the PLO, they consented, for the time being, to refrain from military action.

As for the U.S.S.R., until April, 1976, it was concerned with events in Lebanon only insofar as they affected other Soviet interests in the area: the strengthening of ties with Damascus, attempts at fostering Syrian-Iraqi cooperation, and efforts at isolating Sadat and undermining United States influence. In the Lebanese context, Moscow was not particularly concerned with the fate of the Maronite community;

its sympathies have long been with leftist elements and the PLO. At the same time, as noted, Soviet leaders hesitated to challenge Asad—the Kremlin's chief ally in opposing both Sadat and United States diplomatic efforts in the Arab-Israeli sector.

Soviet uneasiness at the growing Syrian military involvement in Lebanon (Syrian-based and controlled Palestinian units of the *Sa'iqa* group were moved across the border in January, 1976) and a clear disapproval of the use of force were first voiced publicly on April 8. In a *Pravda* article, signed by "Observer," the Kremlin praised Asad for his "*mediation role*" in Lebanon. It also expressed its "full support for the legitimate aspirations of the Lebanese people to be masters of their own destiny" and "to resolve the present crisis by *peaceful means*." (Italics added.) One may wonder whether the statement was a last minute attempt to forestall Asad's impending escalation of the conflict. If so, it failed: on April 9, one day after the appearance of the "Observer's" article, units of the Syrian army crossed into Lebanon. In fairness to Asad, however, it should be noted that the initial deployment was intended mainly to demonstrate the seriousness of his intentions to the Lebanese leftists and to the PLO.

As it turned out, the limited Syrian military presence produced few tangible results; thus on June 1, Asad dispatched a larger force, backed by armored units. For the next two weeks—until the arrival of a hastily assembled Arab League peace-keeping force—the world was treated to the gruesome and mind-boggling spectacle of the Syrian army, openly applauded by the Lebanese Christians and the Israelis (and with the quiet approbation of Washington), attempting to crush the Lebanese leftists and units of the PLO. Both sides were heavily armed with Soviet weapons and traditionally both were among Moscow's staunchest supporters in the Middle East.

To make a bad situation even worse, from the Soviet position, the Syrian offensive in Lebanon coincided with the arrival in Damascus of Soviet Prime Minister Aleksei Kosygin after a disappointing visit to Baghdad. This turn of events—totally unanticipated when the trip was first planned—must have been enormously upsetting to the Russians. Not only was Kosygin unsuccessful in his primary mission of mending relations between Iraq and Syria—now more than ever divided over Lebanon—but he also found in President Asad a man who had staked his political reputation on his ability to settle the Lebanese imb-

(Continued on page 133)

O. M. Smolansky is the author of *The Soviet Union and the Arab East Under Khrushchev* (Lewisburg: Bucknell University Press, 1974) and has written extensively on Soviet foreign policy and the international relations of the Middle East.

"It is true that Soviet agriculture has made progress, and this fact must be pointed out. But, in the immediate future, the ability of the Soviet agricultural sector to meet the needs of the economy and the population will be closely tied to short-term changes in the rate of progress and, in particular, to the ability of Soviet planners to cope with imbalances as they arise."

The Soviet Economy

BY ROBERT C. STUART

Professor of Economics, Douglass College, Rutgers University

OVER THE YEARS, there has been a continuing Western interest in the performance of the Soviet economy. An important element in assessing this performance is the contribution of the agricultural sector, which in the Soviet case, plays a substantially greater role than does, for example, the agricultural sector in the American economy.

In the Soviet Union, the agricultural sector currently accounts for roughly one-third of total Soviet output of goods and services and utilizes roughly one-fifth of the total civilian labor force and one-fourth of annual investment in the economy. The fact that the Soviet agricultural sector commands substantial resources from the system, yet suffers from significant year-to-year fluctuations in performance has tended to focus considerable attention at home and abroad on this sector. Indeed, beyond the traditional focus of interest on how well agriculture is performing in general terms, considerable interest centers on the degree to which performance can be related to the unique organizational arrangements found in the Soviet countryside.

The Western view of Soviet agriculture has gen-

erally been negative. This view stems from a rather long catalogue of difficulties that have pervaded the Soviet rural sector, for example, the natural and climatic peculiarities, inadequate investment and lack of processing, storing and distribution facilities.

Socialist agriculture in the Soviet context has now been operating, albeit with important changes, for a relatively long span of years. In assessing the performance of this system we have tended to focus (quite properly) either on short-term plan fulfillment relative to the needs and desires of the population and the economy, or in a longer time frame, on the contributions of the agricultural sector to Soviet economic growth and development.¹

But Soviet agriculture can appropriately be appraised in terms of a different scenario, namely, the transition that has been observed historically during economic development, the shift from an *extensive* to an *intensive* pattern of resource use in the agricultural sector.² The nature of agricultural development and specifically the intensification of production (to use the Soviet term) has been widely discussed in the literature and therefore need not be elaborated in detail here.³

Simply put, for a variety of reasons, the relative importance of the rural sector declines as development proceeds; resources move from agriculture to non-agriculture, and within the agricultural sector there is factor substitution (typically, capital for land and labor), improvement in the quality of conventional inputs and attention to the non-conventional inputs, all designed to increase factor productivity. In the Soviet case, where natural forces limit easy expansion into new land area and where labor is continually attracted to the industrial sector, it is essential that increases in agricultural output be generated from better utilization of available inputs rather than primarily from expansion in the volume of inputs.

¹ For a discussion of this theme, see James R. Millar, "Mass Collectivization and the Contribution of Soviet Agriculture to the First Five-Year Plan: A Review Article," *Slavic Review*, vol. 33, no. 4 (December, 1974), pp. 750-766; Michael Ellman, "Did the Agricultural Surplus Provide the Resources For the Increase in Investment During the First Five-Year Plan?" *Economic Journal*, vol. 85 (December, 1975), pp. 844-864.

² The concept of extensive growth in this context refers to growth of agricultural output resulting from increases in the volume of traditional inputs (land, labor, and capital). Intensive growth refers to output expansion derived, for example, from improved *quality* of inputs, factor substitution and attention to non-conventional inputs such as organization.

³ For an excellent survey, see Bruce R. Johnston, "Agricultural and Structural Transformation in Developing Countries: A Survey of Research," *Journal of Economic Literature*, vol. 8, no. 2 (June, 1970), pp. 369-404.

In light of the continuing Soviet emphasis on such a pattern of intensification and the recent completion of the ninth five year plan (1971-1975) and commencement of the tenth five year plan (1976-1980), it seems appropriate to interpret Soviet agricultural development within the context just outlined.

PAST POLICIES: AN INTERPRETATION

Although doubtless somewhat artificial in the long run, it is useful to divide the post-World War II years of Soviet history into two periods: those years during which Nikita Khrushchev ruled (through the early 1960's) and the post-Khrushchev era under Leonid Brezhnev. In some respects, the distinction is not sharp, although one could argue that under Khrushchev the era of intensification began, while under Brezhnev it continued albeit without the personality and schemes associated with the name of Khrushchev.

One could argue that the last 25 years of Soviet agricultural development represents a significant, if sometimes uneven and halting, movement away from an extensive pattern of resource use towards an intensive pattern. If such is in fact the case, present and potential future Soviet agricultural performance could be appraised within a framework of an economic system moving towards maturity.

I have argued elsewhere that under Khrushchev's leadership, one can identify the pursuit of agricultural policies both extensive and intensive in nature.⁴ On the one hand, Khrushchev is most frequently remembered for the campaigns he promoted.⁵ As an example, consider the Virgin Lands Program. While this program was initially modest, in time it became less so. Begun in 1954, the goal was to expand the sown area by 32 million acres through 1955. By 1960, however, 104 million acres had been added. Indeed, between 1950 and 1971, the total sown area increased by 149 million acres, a rather substantial input expansion.⁶

On the other hand, one could view many changes of the Khrushchev years as leading to a more intensive resource use pattern: the substantial improvement in the quality of managerial personnel on farms, substantial improvement of material incentives, especially on collective farms, and a number of positive

⁴ For an analysis of this view, see Robert C. Stuart, *The Collective Farm in Soviet Agriculture* (Lexington, Mass.: D. C. Heath, 1972).

⁵ For a summary view and reference to the literature, see Paul R. Gregory and Robert C. Stuart, *Soviet Economic Structure and Performance* (New York: Harper and Row, 1947), ch. 7.

⁶ *Ibid.*, p. 243; Roger A. Clarke, *Soviet Economic Facts 1917-1970* (London and Basingstoke: The Macmillan Press Ltd., 1972), p. 101.

⁷ The standard work on the MTS is Robert F. Miller, *One Hundred Thousand Tractors* (Cambridge, Mass.: Harvard University Press, 1970).

organizational changes like the abolition of the machine tractor stations.⁷ On balance, the impact of these changes must have been positive. And even where problems still exist (for example, the provision of adequate labor resources), it must be remembered that without improved incentives the present day problem of labor supply could be substantially worse than it in fact is.

There is, of course, no clear demarcation between an extensive and an intensive resource use pattern. Indeed, the transition is typically long term and is subject to adjustment rigidities. Further, it is very difficult in practice to isolate and evaluate the separate forces contributing to this sort of change.

In this sense, while the long-term Soviet strategy of intensification is rational, we should not be surprised to see short-term reverses. The important question, however, is whether these reverses (especially given the peculiarities of the Soviet natural environment) can be held in check so that long-term progress is not inhibited.

Turning briefly to the Brezhnev years, several generalizations seem appropriate. First, the campaign schemes of the Khrushchev era, largely extensive in character, are gone.

Second, some of the less well-known yet probably more important changes of the Khrushchev years seem to have been retained; for example, organizational improvements, specialization and emphasis upon improved incentives.

Third, at least in the early years and in spite of (or because of) severe climatic reverses, an impressive effort has been made to expand investment and to direct that investment to intensification of production, for example, through soil improvement (drainage, fertilization and so on).

SOVIET AGRICULTURAL PERFORMANCE: THE POST WAR YEARS

There is a wide range of indicators, each of which can tell us something about the performance of Soviet agriculture. An examination of the data in Table I indicates that over the period of roughly 20 years (the early 1950's through the early 1970's), Soviet agricultural production has expanded significantly. Indeed, for products like grain, milk, wool and vegetables, the volume of output (as measured by averages for the plan periods) has roughly doubled. For other products, like sugar beets, meat and eggs, output has roughly tripled.

However, while these data reveal substantial long-term increases in output, three reservations must be made. First, these averages for plan periods conceal significant year-to-year fluctuations resulting in large part from climatic reverses. For example, while the output of grain for the plan period 1971-1975 averaged approximately 181 million tons, annual output

TABLE 1: SOVIET AGRICULTURAL PRODUCTION
(thousand metric tons)

Product	1951–55 Average	1956–60 Average	1961–65 Average	1966–70 Average	1971–75 Average	1976–80 Plan Average
Grain	88,500	121,300	130,300	167,600	181,500	215–220,000
Cotton(raw)	3,888	4,363	4,996	6,099	7,700	9,000
Sunflower seeds	2,456	3,672	5,068	6,389	5,971	7,600
Sugar beets	23,981	45,644	59,170	81,118	75,921	95–98,000
Meat	5,665	7,854	9,320	11,583	14,050	15–15,600
Milk	37,907	57,217	64,714	80,553	87,445	94–96,000
Wool	226	317	362	398	441	n.a.
Eggs(million)	15,874	23,580	28,736	35,840	51,475	58–61,000
Potatoes	69,337	88,258	81,628	94,813	89,737	n.a.
Vegetables	11,203	15,043	16,877	19,472	22,755	n.a.

Sources: Compiled from *Ekonomicheskaiia Gazeta*, vol. 6 (1976), pp. 3–6; U.S. Department of Agriculture, *Agricultural Statistics of Eastern Europe and the Soviet Union 1950–70* (Washington, D.C.: U.S.D.A., 1973); U.S. Department of Agriculture, *The Agricultural Situation in the Soviet Union: Review of 1975 and Outlook for 1976*, no. 118 (Washington, D.C.: U.S.D.A. Economic Research Service, Foreign Agricultural Economic Report, April, 1976); David M. Schoonover, "New Soviet Plan Stresses Slower Livestock Gains," *Foreign Agriculture*, vol. 14, no. 3 (January 19, 1976), pp. 2–4, 12. n.a. = not available.

ranged from a high of 222 million tons in 1973 to a low of 140 million tons in 1975.⁸ Obviously, this sort of fluctuation will generate severe repercussions throughout the economy in terms of grain for consumption, as an input to the production process and in the foreign sector where expanded imports are in part financed with hard currency.

Second, what constitutes good output performance? The answer depends in large part on the benchmark used. Thus, the Soviet performance compares favorably with that of countries similarly situated, in terms of factor endowments, natural conditions, level of development and so on. But Soviet leaders might take little comfort in such a comparison, because they face limited food supplies poorly distributed, which are heavily supported by external purchases and substantial subsidies to internal producing units.

Third, both outputs and inputs should be considered. If the Soviet agricultural sector is moving from an extensive to an intensive pattern of resource use, there should be evidence of expanding output per unit of input and factor substitution. These questions are of major importance in assessing future trends in Soviet agriculture. Data on inputs to agricultural production are summarized in Table 2.

Although we have made no allowance for changes in the quality of inputs, Table 2 indicates that there has been an ongoing substitution of investment, ma-

chinery and equipment, and fertilizer for land and labor. The volume of investment in agriculture has increased substantially from one plan to another. Moreover, as a portion of total investment in the economy, investment in agriculture has grown from roughly 16 percent in the plan period 1951–1955 to a projected share of just over 27 percent in the plan period 1976–1980.⁹ Over the same period (1955–1980), the labor force engaged in socialized agriculture has declined by more than 12 million persons representing a decline from just under 40 percent of the civilian labor force (1955) to just under 20 percent of the civilian labor force (projected 1980).¹⁰

The area of land sown to crops has increased only marginally since the spurt of the Virgin Lands Campaign in the 1950's. In recent years, the emphasis has been placed on reclaiming land through drainage and irrigation, and on improving soil quality through fertilization.

Clearly, there have been changes in both the output and the inputs of Soviet agriculture. But what about the relation between the two and what about changes in productivity? The results of a recent study of Soviet agricultural productivity, summarized in Table 3, isolate in a general way the increases in output derived from increases in the volume of traditional inputs on the one hand and, on the other hand, increases in output derived from other sources.

If output increased only according to the increase of conventional inputs (usually land, labor and capital), then we could expect growth of output at the rate observed in line B of Table 3. However, if productivity increases, we expect output to grow more rapidly than inputs, and indeed this is the case for most years since the early 1950's. Although many forces could explain variations in productivity growth over time, in the two periods when it was negative (1961–1965 and 1971–1972) climatic factors were

⁸ S.S.S.R. v. *Tsifrakh v 1974 Gody* (Moskva: Statistika, 1975), pp. 100–101; *Ekonomicheskaiia Gazeta*, vol. 6 (February, 1976), p. 4.

⁹ This comparison slightly overstates the differential between the two periods since the data for 1976–1980 are more inclusive than those of the earlier period. For an explanation, see footnote 1 to Table 2.

¹⁰ Data from Murray Feshbach and Stephen Rapawy, "Soviet Population and Manpower Trends and Policies," in U.S. Congress, Joint Economic Committee, *Soviet Economy in a New Perspective* (Washington, D.C.: U.S. Government Printing Office, forthcoming).

TABLE 2: SOVIET INPUTS TO AGRICULTURAL PRODUCTION

Input	1951-55 Average	1956-60 Average	1961-65 Average	1966-70 Average	1971-75 Average	1976-80 Plan Average
Total Investment ¹ (million rubles)	A. 2,945 B.	5,704	9,125	14,930 (16,440)	22,729 ² (26,300)	(34,340)
Tractors (thousands of physical units delivered)	92 ³	149	218	293	333	380
Grain Combines (thousands of physical units delivered)	46 ³	76	77	94	90	108
Trucks (thousands of physical units delivered)	87 ³	66 ⁴	84	143	220	270
New Irrigation (million hectares)	n.a.	n.a.	0.1	0.36	0.90	0.80
New Drainage (million hectares)	n.a.	n.a.	0.24	0.78	0.88	0.94
Fertilizers (million tons delivered in standard units)	5 ³	11	18	37	60	93
Labor Force (as of July 1, in thousands excl. private) ⁵	39,276	36,617	31,344	30,263	28,688	27,115
Sown Area (million hectares)	146 ³	196	212	270	212 ²	n.a.

Sources: Compiled from Keith Bush, "Soviet Agriculture: Ten Years Under New Management," Radio Liberty Research Paper, August 21, 1974; *Ekonomicheskaiia Gazeta*, vol. 6 (1976), pp. 3-6; *Sel'Skoe Khoziaistvo SSSR* (Moskva: Statistika, 1971); *SSSR v Tsifrah v 1974 Gody* (Moskva: Statistika, 1975); U. S. Department of Agriculture, *Agricultural Statistics of Eastern Europe and the Soviet Union 1950-1970* (Washington, D.C.: U.S.D.A., 1973); Data from Murray Feshbach and Stephen Rapawy, "Soviet Population and Manpower Trends and Policies," in U.S. Congress, Joint Economic Committee, *Soviet Economy in a New Perspective* (Washington, D.C.: U.S. Government Printing Office, forthcoming); David M. Schoonover, "New Soviet Plan Stresses Slower Livestock Gains," *Foreign Agriculture*, vol. 14, no. 3 (January 19, 1976), pp. 2-4, 12; U.S. Department of Agriculture, *The Agricultural Situation in the Soviet Union: Review of 1975 and Outlook for 1976*, no. 118 (Washington, D.C.: U.S.D.A., Economic Research Service, Foreign Agricultural Economic Report, April, 1976).

¹ Includes investment by the state and by collective farms. Series A is official Soviet in "comparable prices." Series B is official Soviet in fixed prices of 1969. Series B includes capital investment made in behalf of but not directly to agriculture, for example, construction, processing.

² Average of the years 1971-1974.

³ 1950 only.

⁴ 1960 only.

⁵ Labor force data are for the terminal years only; 1955, 1960 etc.
n.a. = not available.

probably important. Both 1963 and 1972 were very unfavorable agricultural years in the Soviet Union. Thus productivity has improved, although at an uneven rate.

CONSUMPTION PATTERNS

A very different barometer of agricultural performance would be the ability to support the desired dietary changes of the population. In discovering what is "desired," we might appeal to other country

experiences and/or look directly at Soviet consumption norms. Some relevant data are assembled in Table 4, on the basis of which two observations seem pertinent.

First, the direction of change in food consumption patterns is generally what one would expect from a country experiencing economic development. Thus there is a reduction in the per capita consumption of high starch items like potatoes and an increase in the consumption of high protein items like meat.

TABLE 3: SOVIET AGRICULTURAL PRODUCTIVITY
(average annual percentage rate of growth)

Indicator	1951-55	1956-60	1961-65	1966-70	1971-72	Plan 1971-75
A. Output (3 year moving average)	4.8	4.9	2.8	3.4	-1.9 ¹	-4.5 ¹
B. Total Inputs	3.1	2.0	2.8	1.3	2.0	1.9
C. Factor Productivity ²	1.7	2.9	- .04	2.1	-3.8	2.5

Source: Douglas B. Diamond and Constance B. Krueger, "Recent Developments in Output and Productivity in Soviet Agriculture," in U.S. Congress, Joint Economic Committee, *Soviet Economic Prospects for the Seventies* (Washington, D.C.: U.S. Government Printing Office, 1973), p. 318.

¹ Output for the terminal year only over the three-year average for the last year.

² The increase in output that arises for forces other than the increase in conventional inputs (land, labor, and capital) as measured in line B.

TABLE 4: SOVIET PER CAPITA CONSUMPTION OF SELECTED FOODS, 1950-1970
(kilograms)

Food Item	Norm	1950 Actual	1960 Actual	1970 Actual
Meat and Fat	82	26	40	48
Fish & Fish Products	18.6	7.0	9.9	15.4
Milk & Milk Products ¹	405	172	240	307
Eggs (number)	292	60	118	159
Sugar	40	11.6	28.0	38.8
Vegetable Oil	9.1	2.7	5.3	6.8
Potatoes	97	241	143	130
Grain ²	110	172	164	149
Vegetables & Melons	146	51	70	82
Fruit & Berries	113	11	22	35

Source: U.S. Department of Agriculture, *The Agricultural Situation in the Soviet Union: Review of 1975 and Outlook for 1976*, no. 118 (Washington, D.C.: U.S.D.A., Economic Research Service, Foreign Agricultural Economic Report, April, 1976), p. 23.

¹ Includes the milk equivalent of butter.

² Flour equivalent.

Second, Soviet consumption norms, with some exceptions like sugar, have generally not been met, and in many cases they have fallen short by a rather substantial margin. These gaps may arise in part from the difficulty of defining consumption norms in the first place. However, they may also be considered as evidence of the inability of the system to meet its own goals. Nevertheless, dietary patterns have improved over time.

General evidence seems to support the view that the Soviet agricultural sector has been moving from an extensive to an intensive pattern of resource use. Indeed, by rather conventional indicators, Soviet agriculture has made considerable, though uneven, progress in the post-World War II years.

Even organizational change, difficult to measure, seems evident. Considerable effort has been devoted to the reorganization of the livestock sector to resolve long standing problems of forage, meat preparation, and processing. Similarly, an effort has been made to establish specialized farms to provide Soviet cities with adequate food supplies—fruits, vegetables and the like. One could cite a number of such examples.

However, any long-time observer of Soviet agricul-

tural development would take a hesitant posture in projecting trends for the immediate future. Why is this so?

It is true that Soviet agriculture has made progress, and this fact must be pointed out. But, in the immediate future, the ability of the Soviet agricultural sector to meet the needs of the economy and the population will be closely tied to short-term changes in the rate of progress and, in particular, to the ability of Soviet planners to cope with imbalances as they arise. Has the long-term rate of progress been sufficiently great to guarantee the absorption of short-

(Continued on page 132)

Robert C. Stuart is chairman of the department of economics at Douglass College, Rutgers University. He is managing editor (in economics) of *Soviet Union*, and the author of *The Collective Farm in Soviet Agriculture* (Lexington, Mass.: D. C. Heath, 1972) and, with Paul R. Gregory, *Soviet Economic Structure and Performance* (New York: Harper and Row, 1974); he has also written many articles on Soviet agricultural development.

"Soviet energy reserves are vast, but they are not cheap. Their exploitation demands very long lead times and an ever larger share of the nation's capital and manpower resources, material products and research effort."

Soviet Energy Resources and Prospects

BY LESLIE DIENES
Associate Professor of Geography, University of Kansas

THE SOVIET UNION consumes 57 percent as much energy as the United States and more than the nine member European Economic Community,¹ yet it is self-sufficient in all forms of energy and is a major exporter. However, despite justifiable confidence in their country's long-term energy prospects, Soviet leaders are not complacent about the coming decades. The tenth five year plan (1976-1980) reaffirms the priority of heavy, power-oriented industries as the core of Soviet economic strategy and brings into sharp focus the need to expand fuel-energy supplies. Closely linked with these priorities, and for other reasons as well, the coming years will see still greater efforts to develop Siberia and adjoining areas of the Asiatic U.S.S.R.

As in all countries today, the energy mix of the Soviet Union is dominated by fossil fuels, and the

contribution of primary electricity (power not generated from conventional fossil sources) is and has always been minor. The share of hydraulic power is declining and will drop by the end of the century to less than one-tenth of all electricity, while the contribution of nuclear plants, still very small, will grow markedly, to perhaps between 40 and 50 percent of electric power output.² However, since only one-fourth of gross energy supply today is converted to electricity³ (a share unlikely to double before the 21st century), fossil fuels, responsible for 96 percent of all energy used by the Soviet economy at present, should furnish over three-fourths of the total supply even by the year 2000.

Most fuels are consumed by stationary uses in the form of heat (either as the object of final demand or for process steam and electricity). Overwhelmingly, these comprise boiler and furnace uses, accounting for four-fifths of all fuel consumption in very nearly the same proportions. Demand for motor and fleet fuel reached only 15 percent of the Soviet total in 1970, while less than 5 percent was claimed as raw materials by the chemical industry. These figures are consistent with the sectoral distribution of demand, particularly the low share of transportation which, despite the vast size of the country, claimed only 12 percent of all energy⁴ compared to more than one-quarter in the United States in 1970.⁵ The motor and naval markets and the bulk of chemical synthesis are technologically tied to petroleum, but other uses are more or less open to all fuels; the economic advantages of quality fuels over inferior fuels are least apparent for boiler use. Soviet experts project a significant growth in the share of boiler use (for electricity, steam and hot water) from 37 percent today to 47 percent some 15 years hence.⁶

A key question of Soviet energy policy, therefore, is the choice of fuel for the rapidly expanding boiler market, particularly for power plants, which account for 75 percent of all boiler use. In the early 1970's, one-fourth of all petroleum products and over two-

¹ U.N., Department of Economic and Social Affairs, *World Energy Supplies, 1974* (New York, 1975), pp. 42-43, 94-95 and 110-11.

² *Teploenergetika*, no. 4, 1970, pp. 5 and 7; A. Lalaants, "Dva obshchestva . . .," *Planovoe khoziaistvo*, no. 4, 1975, p. 26 and N. W. Mel'nikov, *Toplivnoenergetcheskie resursy SSSR* (Moscow, 1971), p. 7.

³ Mel'nikov, *op. cit.*, p. 192.

⁴ Gross energy consumption by branches (% of total)

	1960	1975
Industry	56.2	54.1
Transport	13.4	12.0
Agriculture	5.1	6.5
Domestic	20.1	20.3
Others	5.2	7.1
Total	100.0	100.0

Source: P. S. Neporozhny et al., "Fuel and Power Economy of the Soviet Union . . .," *Ninth World Energy Conference*, Detroit, 1974. *Transactions*, vol. 2, p. 149.

⁵ *Statistical Abstract of the United States, 1974* (Washington, D.C.: U.S. Government Printing Office, 1974), p. 515.

⁶ Neporozhny et al., *op. cit.*, p. 156. The reasons are found in the increasing importance of electricity and the intention to reduce the need for small heating units, such as furnaces for individual apartment buildings.

fifths of natural gas were burned for the generation of electricity, steam and hot water.⁷ Reducing or at least stabilizing the demand for gas and, especially, oil has become urgent, although it will not be easy. The gradual electrification of hitherto neglected sectors will intensify the peaking problem in power generation, and solid fuels are unsuitable to cover the peak load. The new emphasis on clean air will cause most TET's (thermal plants distributing steam, hot water and electricity to urban neighborhoods) to burn gas or fuel oil. Finally, the distance between markets and the major centers of incremental coal supply, coupled with the poor physical properties of most cheap coals, will seriously limit the geographic range and economic effect of coal substitution.

Four-fifths of all Soviet energy today is consumed in the European U.S.S.R. (including the Urals and the Caucasus) and some 55 percent is consumed west of the Rivers Volga and Kama.⁸ Many decades of exploitation, coupled with worsening geological conditions, have sharply raised fuel costs in these regions. Exploitation has also led to a rapidly growing physical

shortfall and a massive energy flow from the Asiatic U.S.S.R. to the European provinces and abroad further west. With exports, this flow today reaches 350 million–360 million tons of standard fuel (henceforth SF),⁹ of which 100 million–110 million are represented by natural gas, around 180 million tons by oil, the rest by coal. By 1980, the European U.S.S.R. and the Urals are expected to satisfy only 60 percent of their energy requirement from their own resources and, by 1990, only 40 percent.¹⁰ The neighboring COMECON states of East Europe are also critically dependent on Soviet petroleum, and increasingly dependent on Soviet gas and, to some extent, coking coal. Some 70 million tons of Soviet oil and 20 million–21 million cubic meters of gas (close to 125 million tons of SF) are already committed to East Europe by 1980.¹¹ And while petroleum deliveries to these states may not grow much further, gas exports may easily double or even triple in the subsequent decade.

Current planning policies impose severe restrictions on the further location of energy-intensive industries in the European provinces. Expansion of such industries is to take place mostly in south central Siberia and parts of Kazakhstan, where vast supplies of cheap but low quality coal and hydroelectricity can provide energy at uncommonly low cost. However, beyond a narrow range of industries, accelerated development in this area would involve a heavy commitment of manpower on a scale impossible to sustain, given the precipitous decline of East Slavic birthrates and the net outflow of people from Siberia since the late 1950's.¹² Consumption of fuel and of electricity between the Urals and Lake Baikal has been increasing. In that area, per capita fuel consumption today exceeds the Soviet average by almost one-half and is surpassed only in the Urals and the Eastern Ukraine, the two principal heavy industrial bastions of the country, while per capita electricity use is more than 70 percent above the Soviet mean. Yet with the gradual dispersion of manufacturing and greater supplies of energy to low priority sectors, per capita consumption has also grown in the underdeveloped regions of the European U.S.S.R. The Urals and European provinces, therefore, should account for over 70 percent of all demand into the 1990's. The heart of Soviet energy policy will remain the problem of furnishing these regions with fossil fuels, whose incremental supplies must come almost entirely from Soviet Asia.

The difficult resource conditions and the rapidly growing transport burden place heavy demands for material and other inputs on the economy. The fuel-energy industries already consume almost two-thirds of all pipes, up to one-fifth of all other products of ferrous metallurgy, about 15 percent of all copper and aluminum and 15 percent of the gross output of

⁷ In 1973, this amounted to over 80 million tons of petroleum products and some 100 billion cubic meters of natural gas. U.S., CIA, *Soviet Long-Range Energy Forecasts*, A(ER) 75-71, September, 1975, p. 19. For power stations alone, see A. S. Pavlenko and A. M. Nekrasov, eds., *Energetika SSSR v 1971–1975 godakh* (Moscow, 1972), pp. 170–73.

⁸ V. Kudinov and S. Litvak, "O toplivno-energeticheskem balansse," *Vestnik Statistiki*, no. 9, 1972, p. 42; and Vsesoziuznyi Institut Nauchnoi i Tekhnicheskoi Informatsii, *Razrabotka neftianykh i gazovykh mestorozhdenii* (Moscow, 1972), pp. 44–45.

⁹ 1 ton of standard (or conventional) fuel = 7 million kilocalories. One ton of crude oil = 10 million kcal (1.43 ton of SF); 1000 cu. meters of natural gas = 8.8 million kcal (1.26 ton of SF), though the Soviet yearbook converts it as 8.4 million kcal. Soviet lignites per physical ton range from 2 to 4 million kcal (0.29–0.57 ton of SF), hard coals from 4 to about 6.5 million kcal (0.57–0.93 ton of SF).

¹⁰ G. V. Ermakov et al., "Trends of the Development of the Nuclear Power Industry," *Ninth World Energy Conference*, vol. 5, p. 279. The amount of energy flow today is computed from scattered data on pipeline capacity and transport, coal shipment from the Kuznetsk, Karaganda and Ekibastuz basins and the calorific equivalent of different fuels.

¹¹ *The Economist* (London), July 5, 1975, p. 123; *Figyelö*, May 8, 1974, p. 7; and Moscow Narodny Bank, *Press Bulletin*, June 19, 1974, pp. 4–5. In 1975, 72 million tons of oil was exported to all COMECON countries, including Cuba and Mongolia. *Ekonomicheskaiia gazeta*, no. 19 (May, 1976), p. 21.

¹² In both the Russian Republic and the Ukraine, the net reproduction rates have been below replacement level (i.e. less than one offspring per each person of reproductive age) for over a decade, while in Belorussia this level was reached in the early 1970's. B. S. Khorev, *Problemy gorodov* (Moscow, 1971), pp. 241–42; L. P. Shakhot'ko, *Rozhdaemost' v Belorussii* (Minsk, 1975), pp. 142–43 and B. S. Khorev and V. M. Moisenko, *Migratsionnaia podvizhnost' naseleniya v SSSR* (Moscow, 1974), pp. 80. Since the abolition of forced labor transfers, the migrants to the pioneer regions of Siberia have been almost exclusively Slavs and primarily Russians.

all engineering. The energy industries also consume a large portion of their own output, reducing substantially the amount of *net* energy available.¹³ The steadily worsening geological and geographical conditions of supply will increase these burdens.

On an even calorific basis, petroleum is the largest contributor to the Soviet energy balance, accounting for 43 percent of all production in 1975 and 36 percent of all consumption one year earlier.¹⁴ In 1974, the U.S.S.R. overtook the United States in output (becoming first in the world) and in 1975 it produced 491 million tons. The official 1980 target is 620 million-640 million tons, while a Soviet energy expert hazards 800 million tons as a cautious projection by the late 1980's, with 900 million tons as the optimistic upper range. It is significant, however, that the average annual growth rates of oil production have been steadily declining, from 10.4 percent in the first half of the 1960's to 6.8 percent in the first half of the 1970's, and the current five year plan targets only a 4.8-5.4 percent yearly growth. If long-term projections materialize, the 1980's will see only a 3 percent increase per annum. The volume of increment is to remain steady around 30 million tons per year throughout the 1970's and may in fact decline in the following decade. The relative contribution of petroleum to the energy mix has reached its zenith. The 1976-1980 plan barely holds the present share, and the tentative projections anticipate a noticeable decline in the 1980's.

The problem of future oil supplies concerns both

the availability of reserves and geographic distribution. Soviet petroleum reserves are classified. However, fragmentary data indicate that the *proved recoverable* (A+B category) totals perhaps 10 billion-11 billion tons (73 million-80 million barrels), that is, a 20-22 year supply at the current rate of production and, it seems, a somewhat improved level of recovery technology. With a recovery rate of 50 percent (up from the present 41-44 percent), new reserves of some 30 billion tons would have to be explored and developed to cover projected needs through 1990 while maintaining the 20-to-1 reserve-production ratio.¹⁵ Through most of the 1960's and through the first half of the 1970's this ratio has been declining.¹⁶ The volume of prospecting and exploratory work has remained virtually on the same level, and exploratory drilling has not kept up with drilling of production wells.

Serious also is the significant rise in costs at most producing fields, associated with early drops in reservoir pressures and declining flow. The Russians are justly proud of their record of pressure maintenance and secondary recovery, particularly by water flooding, which result in a smaller percentage of oil remaining in the ground than in the United States. Still, the share of oil recovered from free-flowing wells dropped to 45 percent from 70 percent in the early 1960's, and the number of wells with reduced output is growing every year.¹⁷ Therefore, in order to augment petroleum production by 31 million tons annually (the average for the last two years), new capacities of 87 million tons must be introduced each year for the rest of the decade and at least 90 million tons each year in the following period. Tertiary, especially thermal, methods of recovery, now used to produce a mere 0.3 percent of petroleum, also will have to increase, and even the mining of heavy oil is being cautiously considered for the future.

No less serious are the geographic problems associated with the development of the oil industry. In the European U.S.S.R., most fields have reached the plateau phase or are in already declining stages of exploitation. During the 1965-1970 period, the European provinces still accounted for 57 percent (61 million tons) of all increment in petroleum production. Between 1970 and 1975, they contributed only 8 percent (11-12 million tons) to the increment, and their share in total output fell from 82 percent to 61 percent. Eighty-four percent of all increment in the first half of the 1970's was accounted for by the new petroleum province of West Siberia alone.¹⁸ With 150 million tons in 1975, it produced three-tenths of all Soviet oil (in the first quarter of 1976 almost two-fifths) and is scheduled to produce 300 million-310 million tons by 1980, nearly half of the expected Soviet total.¹⁹

New discoveries in the well-prospected regions west

¹³ For example, the Soviet oil industry directly consumes 14 percent of its output in refining and field operation and uses some 100 KWH of electricity per ton of oil produced. Large gas pipelines consume 6-7 percent of the gas transmitted per every 1000 km. Line losses and station use account for 15 percent of gross electricity consumption in the USSR. M. B. Ravich, *Toplivo i effektivnost' ego ispol'zovaniia* (Moscow, 1971), p. 203; *Neftianik*, no. 6 (June, 1975), p. 7; *Energetika i transport*, no. 1, 1975, p. 122; L. Samsonov, *Rol' elektrifikatsii v povyshenii effektivnosti obschchestvennogo proizvodstva* (Moscow, 1974), p. 142 and *Ekonomicheskie stantii*, no. 1, 1971, p. 2.

¹⁴ Computed as production minus *net* export. *Narodnoe khoziaistvo SSSR v 1974 godu* (henceforth *Narkhoz SSSR v . . . godu*) (Moscow, 1975), p. 83 and *Vneshnaya torgovlia SSSR za 1974 god* (Moscow, 1975), pp. 29 and 44.

¹⁵ U.S., CIA, *Soviet Long-Range Energy Forecasts*, p. 10; *The Christian Science Monitor*, February 25, 1975, p. 4 and *Ekonomichekskaiia gazeta*, no. 11 (March, 1974), p. 7.

¹⁶ N. Mel'nikov and V. Shelest, "Toplivno-energeticheskii kompleks SSSR," *Planovoe khoziaistvo*, no. 2, 1975, p. 11 for the 1970's and *Exploitation of Siberia's Natural Resources*, NATO Directorate of Economic Affairs (Brussels, 1974), pp. 76, 110-111 for the 1960's.

¹⁷ *Neftianoe khoziaistvo*, no. 6, 1975, pp. 29 and 31-32; R. W. Campbell, *The Economics of the Soviet Oil Industry* (Baltimore, 1968), p. 134.

¹⁸ T. Shabad, "News Notes," *Soviet Geography: Review and Translation* (henceforth *SG:RT*), May, 1975, p. 334 and *Neftianik*, no. 6, 1975, p. 7.

¹⁹ *Ekonomichekskaiia gazeta*, no. 13 (March, 1976), p. 1 and no. 18 (April, 1976), pp. 2 and 4.

of the Urals are increasingly difficult. In the late 1960's, exploratory drilling for hydrocarbons was already proceeding at a depth of 3,500–4,000 meters in the Ukraine and Belorussia, and in the Lower Volga-North Caspian regions a few wells are now being drilled to below 5,000 meters.²⁰ Similarly, offshore exploration continues in the Caspian and has begun in the Azov, Black and Baltic Seas, as well as in the European Arctic. Still, for the foreseeable future the Soviet oil industry will be critically dependent on the harsh and remote Asiatic provinces not only to provide incremental supplies but increasingly also to compensate for declining output elsewhere.

East of the Urals, in the primeval swamps of the Middle Ob' Basin, the cost of road construction can exceed 0.5 million rubles per kilometer, dozens of tractors disappear in the marsh each year, and drilling crews must work from man-made islands that take years to build. The northern half of West Siberia and nine-tenths of East Siberia and the Far East are underlain with almost continuous permafrost and experience annual average temperature variations of 70° to 100°F, thus requiring very expensive and highly specialized construction technology. Conditions in the barren deserts east of the Caspian are little better, and the high viscosity of most of the crude presents great problems for production and delivery even through heated pipelines. The prolific Middle Ob' fields will be the mainstay of the oil industry's growth until the end of this decade, but they, too, will mostly peak by that time.²¹

Further production increases in West Siberia will require the discovery and development of large deposits in the northern half of the region under still

more difficult conditions including permafrost. If more distant production goals are to be reached, the 1980's must also see a vast prospecting effort on the East Siberian Platform, the largest sedimentary province of all, but with a very complex geology, the harshest climate in the U.S.S.R., 1,500–2,000 kilometers further east than the fields of the Middle Ob'.

Of all fuels, crude oil is the most transportable and the cheapest to move. A 1,220 mm. (48 inch) crude pipeline can pump 80 million–90 million tons per year, depending on the number of pumping stations, equal to the calories carried by 5 gas pipelines of similar diameter, or those carried by 120,000–140,000 railway wagons hauling hard coal.²² The Russian petroleum industry no longer has a pipeline bottleneck. At the end of 1975, almost 47,000 km. of pipelines transported nine-tenths of all crude output, and the big Siberian fields today are linked with 40-inch and 48-inch lines to major refinery and market centers and to ports on the Black and Baltic Seas. Nonetheless, further expansion of about 15,000 miles is planned by 1980 to tap new fields and to handle production increases.

Soviet refineries today handle 83–84 percent of all crude oil output (a reported 357 million tons in 1973)²³ and, with the planned increase in capacity, should refine 510 million–530 million tons by 1980, leaving roughly 110 million tons of surplus crude. Soviet planners have refused to follow the European pattern of maximizing heavy distillates (mostly fuel oil) in their refinery mix. Large investments in cracking, reforming and other secondary capacities continue to increase the yield (and upgrade the quality) of light products, and less than two-fifths of all refinery runs now consist of straight distillation. Of all refining capacity, no more than 70 million tons today seems to be operating in the Asiatic U.S.S.R. Major expansions under way should raise this to some 90 million tons in the early 1980's, still no more than one-fifth of the Soviet total.

²⁰ The Economist Intelligence Unit/QER Special, no. 14, June, 1973, *Soviet Oil to 1980* (London), p. 17 and V. N. Kal'chenko, *Gazovaia promislovost' i tekhnichnyi progres* (Kiev, 1972), pp. 72–75.

²¹ In West Siberia, the Russians staked the bulk of their effort on the giant Samotlor field, which today accounts for almost three-fifths of all West Siberian output and is probably producing more crude than any field in the world except for Saudi Arabia's Ghawar. This crash program will make the reservoir peak by 1978 and further increments will have to come from smaller fields, farther from the vital traffic artery of the Ob', and so far neglected. Soviet experts now allegedly regard the all out stress on Samotlor as a policy mistake. *The Oil and Gas Journal*, April 12, 1976, pp. 27–29 and September 1, 1975, pp. 62–63.

²² Mel'nikov, *op. cit.* (1971), p. 182 and Iu. Bokserman, "Puti povysheniia effektivnosti transporta toplivo," *Planovoe khoziaistvo*, no. 2, 1975, pp. 21–22.

²³ U.N., Economic Commission for Europe, *Annual Bulletin of General Energy Statistics for Europe, 1973* (New York, 1975), p. 112; *Narkhoz SSSR v 1973 godu*, p. 259 and *Soviet Oil to 1980*, pp. 36–37.

²⁴ *Gazovaia promyshlennost'*, no. 6, 1975, p. 2 and no. 1, 1975, p. 5. The recovery rate of gas is much higher than that of oil, varying in the U.S.S.R. from 80 to 90 percent of explored reserves of a deposit. *Gazovaia promyshlennost'*, no. 8, 1975, p. 4.

NATURAL GAS

Today, natural gas contributes one-fifth of all Soviet energy production and nearly 23 percent of all consumption, and these shares should continue to increase for at least 15 years. In 1975, the U.S.S.R. produced 239 billion cubic meters, half the United States total. With 400 billion–435 billion cubic meters in 1980, according to the new five year plan target, and tentatively over 900 billion cubic meters ten years later, Soviet gas output should surpass the declining American level at the beginning of the 1980's. Explored reserves of gas are by far the largest in the world (24 trillion–25 trillion cubic meters in the A + B + C₁ category) and should last 70–90 years (depending on the rate of recovery) at the current production level.²⁴ No reserve bottleneck, therefore,

hampers rapid expansion and the problems of the industry are due almost entirely to geography and the difficulties of transport.

As with oil, most gas fields west of the Urals have peaked or are approaching exhaustion, and despite new discoveries, the European U.S.S.R. today has less than one-fifth of all explored reserves. More than three-fifths of such reserves (by some accounts almost 70 percent) are concentrated in the permafrost ridden wilderness of northwest Siberia, and close to 15 percent are located in the deserts of Central Asia,²⁵ both 2,000–3,000 kilometers from the main urban-industrial concentrations of the European Soviet Union. In the Ukraine and the North Caucasus, which provided over 60 percent of all Soviet gas through much of the 1960's and more than half even in 1970, reserves and output are both declining, despite extensive drilling. Although two very large and several small fields were discovered elsewhere west of the Urals, the European U.S.S.R. contributed less than 15 percent of the total increment in gas output between 1970 and 1975, and its share declined from 70 percent to little over half of the Soviet total.

The European U.S.S.R. must now look to the Asiatic provinces for an ever increasing share of its natural gas supplies. Today, the major eastern suppliers are the Muslim republics east of the Caspian Sea (Turkmenia, Uzbekistan and Kazakhstan), which send some 70 billion cubic meters, almost three-fourths of their total output, to the European U.S.S.R. and

²⁵ Bokserman, *op. cit.*, p. 21 and *Gazovaia promyshlennost'*, no. 8, 1975, p. 4 and *The Oil and Gas Journal*, April 14, 1975, p. 22. Half of all Soviet reserves are found in 6 supergiant fields, of which 4 are located in northwest Siberia, one in Central Asia and one in Orenburg Oblast of the European USSR. The Urengoi field in Siberia alone concentrates a fifth of all explored reserves and is by far the largest gas field in the world discovered to date.

²⁶ *Gazovaia promyshlennost'*, no. 6, 1975, p. 2 and T. Shabad, "News Notes," *SG:RT*, February, 1976, p. 139 and *Basic Industrial Resources of the USSR* (New York, 1969), p. 318.

²⁷ In general, compressor stations must be located in less than 200 km. interval. For the largest lines, the Russians must master compressors with 25,000 KW capacities, 3–4 times larger than those now in use.

²⁸ Moscow Narodny Bank, *Press Bulletin*, April 14, 1976, p. 8; April 28, 1976, p. 6 and June 2, 1976, pp. 4 and 10–11. During the 1971–75 plan, for example, 6.3 million tons of large diameter steel pipes were imported. A new 1.5 billion DM contract with West German firms will secure 17 compressor stations for the Orenburg-Uzhgorod gas line. The long discussed pact with Japan and the U.S. for the search of Iakut gas was also signed recently. This gas, if found, will go almost entirely for export through Pacific ports and will have little effect on the domestic energy economy of the USSR. Moscow Narodny Bank, *Press Bulletin*, March 31, 1976, p. 4 and April 7, 1976, p. 15.

²⁹ The percent declined from 61.1 to 58.8. It can be assumed that virtually all natural gas not produced by the Ministry of Gas Industry represents oil well gases. Data from *Gazovaia promyshlennost'*, no. 1, 1975, p. 2; *SSSR v tsifrakh v 1974 godu* (Moscow, 1975), pp. 84–85 and *Neftiane khoziaistvo*, no. 3, 1975, p. 4.

the Urals. However, production from these regions will soon approach its limit,²⁶ while local demand in populous Central Asia is expected to grow significantly. Northwest Siberia, therefore, represents the sole reliable source of a future major increment.

The wide range (115 billion–145 billion cubic meters) of gas output in the 1980 plan for West Siberia indicates the uncertainties and problems of field development and transport in this uncommonly difficult environment. Since a gas pipeline can transmit only about one-fifth of the calories carried by an oil pipeline of the same diameter, the transport problem presents far greater obstacles to rapid expansion of gas than of petroleum. To achieve the 1980 goals, 35,000 kilometers of gas pipelines, much of it from 48-inch and 56-inch pipes, will have to be built, and over 150 compressor stations will have to be installed.²⁷ To speed up the exploitation of Siberian reserves, the Soviet Union is prepared to barter large quantities of gas for pipes and compressor stations. It has signed a number of barter contracts with West European firms and has renewed negotiations with United States companies (now with European participation) on the \$8 billion North Star project to export liquefied methane (LNG) through the port of Murmansk.²⁸ The need for gas processing facilities (to remove sulfur and the heavier hydrocarbons before transportation) acts as a further break on expansion. With the shift of petroleum production eastward, the utilization of oil well gases has actually declined since 1970, and over 41 percent of this resource, approaching 40 billion cubic meters, well over one-eighth of all natural gas consumption in 1975, was vented and flared.²⁹

The eastward and northward shift of production centers and the growing cost of maintaining output from older fields sharply raised the cost of production and the incremental need for capital in both the gas and oil industries. Between 1966 and 1972, production costs in the gas industry increased 4.6-fold. During 1970–1975, as compared to the previous five years, 60 percent more investment was required on production and transport to augment gas delivery by 1,000 cubic meters and 29 percent more investment to augment crude oil delivery (to refineries) by 1

(Continued on page 129)

Leslie Dienes' research interests focus on the U.S.S.R. and East Europe, particularly Hungary. He has contributed articles on industrial location problems, energy policy issues and regional development to geographical and interdisciplinary (Slavic and energy) journals in both the United States and abroad and is the author of *Locational Factors and Developments in the Soviet Chemical Industry* (Chicago: University of Chicago Press, 1969). He traveled in East Europe and the U.S.S.R. during 1970–1971 and 1974.

"The twenty-fifth congress is indeed memorable as the reflection of the latest stage in the evolution of once vital revolutionary emotions into the placid, comfortable existence of a ruling elite for which social change is past and all questions are answered."

The Twenty-Fifth Soviet Communist Party Congress

By ROBERT G. WESSON

Professor of Political Science, University of California, Santa Barbara

A FEW DAYS after the great conclave had dispersed, *Pravda* (March 10, 1976) summarized it thus:

The whole world is under the enormous impression evoked by the 25th Congress of Soviet Communists. In the deep and brilliant accounting report of the Central Committee of the CPSU, presented by General Secretary Comrade L. I. Brezhnev, in other materials and decisions of the historic forum, mankind saw the picture of the truly colossal deeds of the Land of the Soviets, the greatness, nobility, and realism of our plans for the building of Communism.

According to the Soviet press, the congress was a grand event, a landmark in Soviet history. For nearly two weeks the press had been filled with reports of the congress and with exhortations to the people to live and work according to its decisions; it was said to have given an enormous charge of energy for new deeds. Virtually the entire Soviet political elite, 4,998 delegates, representing the 15,694,000 members of the party, convened under a bust of Lenin of pharaonic proportions to hear innumerable speeches. The eyes of the world were riveted on the congress, reported Soviet organs. Delegates of more than 100 Communist or workers' parties brought fraternal greetings; effusive tribute was paid to the glories of the Soviet fatherland of socialism.

The party congress might well deserve exhaustive attention. Meeting only once in five years, it is the authoritative body from which, according to the rules and tradition, all other Communist party organs derive their powers. Its duty is to discuss the current situation, set plans and policies for the next five years, and elect the Central Committee, which in turn elects the governing Politburo and names the powerful Central Committee secretaries. Party histories discuss the Soviet past in terms of congresses and their historic decisions, and for many months after a congress the principal slogan is to fulfill and overfulfill the plan in accord with the decisions of the congress.

A party congress is also weighty because it represents a grand historical tradition going back to the days of the supreme genius leader, Vladimir Ilich Lenin, and his struggle to forge the party into an instrument of revolution. It was at the second congress, in 1903, that the Bolshevik faction formed around Lenin, the "hards" against the "softs"; and subsequent pre-war congresses saw exciting conflicts of Bolsheviks against Mensheviks in the continual contest for leadership of the Russian Marxist movement. After 1917, however, when the revolutionaries became governors, the party congresses slowly lost significance. The seventh congress, March, 1918, was the last in which the issue (the acceptance of the Treaty of Brest Litovsk with Germany) was in doubt. The tenth congress, March, 1921, was the last to see a real discussion of political principles. The fifteenth congress, October–November, 1927, was the last to witness a spark of overt opposition to the ruling Stalinist leadership. Joseph Stalin held merely acclamatory gatherings. Even so, he did not like to bring people together because they might communicate with colleagues around the country; and he held no congress between 1939 and 1952. Nikita Khrushchev put some life back into the institution by making it a forum, if not of debate, at least of interesting pronouncements. The twentieth congress, in February, 1956, heard not only Khrushchev's espousal of peaceful coexistence but his secret speech damning the dead idol, Stalin. The twenty-second congress, October, 1961, witnessed many more revelations of the misdeeds of Stalin and of sundry opponents of Khrushchev, with a corresponding shakeup of the rulership.

In the era of Leonid Brezhnev, to the contrary, the watchdog has been stability; no waves are to rock the boat. The twenty-third congress, March–April, 1966, saw only a little re-Stalinization, including conferral of the title of General Secretary on Comrade Brezh-

nev. The twenty-fourth congress, March, 1971, was memorable mostly for the flowering of the Brezhnev cult of personality. Finally, the twenty-fifth congress, February 24 to March 3, 1976, was well characterized by General Secretary Brezhnev when he spoke of the "stability and assured character of the policy of the C.P.S.U." and "calm assurance in our strength." It seemed to evidence the arrival of the Soviet state on calm waters, or perhaps becalmed, possibly stagnant seas.

BREZHNEV'S REPORT

The first major item of the agenda was Brezhnev's "report," which occupied seven full pages of a *Pravda* expanded to ten pages from its usual six, something over 40,000 words. Brezhnev gave most of his attention to foreign affairs, perhaps because he could derive more satisfaction from foreign than domestic developments. In his view, "the world before our eyes is changing for the better"; thus he pointed to numerous successes—more solid relations with East European countries, Communist triumphs in Vietnam, Laos and Cambodia, the victory of leftist forces in Angola, and improved Soviet relations with France and other West European countries. Perhaps best of all, in his view, was the "acute crisis of capitalism." In short, his policies of peaceful co-existence with ideological struggle were fully justified.

Brezhnev was rewarded, as *Pravda* reported, with "stormy prolonged applause. All stand. The ovation thunders in the hall. The delegates chant: 'Glory to the C.P.S.U.,' 'Glory to the Leninist Central Committee, glory, glory,' 'Hurrah.'" Brezhnev was the star of the show; delegate after delegate praised him in terms reminiscent of Stalin's glory: "inspiring selfless example," "an impassioned fighter for communism," and "the most outstanding political figure of our epoch." Young Pioneers trooped down the aisle to recite their thanks to "dear Leonid Ilyich" "for your fatherly concern." His speeches were on hand in handsome bound volumes, or on long-playing records for those who preferred to listen. Politburo candidate member Sh. R. Rashidov gave him credit for helping to create "a pure and cloudless sky above us," and called him the "outstanding leader of contemporary times" (using the English word instead of the Russian "vozhd" applied to Stalin); Geider A. Aliyev, shortly afterwards elevated to the Politburo, cited Brezhnev nine times, dwelling on his "wisdom and principle; boundless energy and organizing talent, modesty and simplicity and selfless struggle for the triumph of Communist ideals."

A few weeks after the congress, Brezhnev was officially mentioned as chairman of the Defense Council, a post which he had probably long occupied quietly, and he was raised to the dignity of Marshal of the Soviet Union. This distinction was never held

by Khrushchev, although his wartime role was considerably more illustrious than that of Brezhnev. Brezhnev was also honored by a bust in his home town in contravention of the rule (from de-Stalinization times) prohibiting monuments to living persons.

The adulation of Brezhnev is not surprising; he has gradually become more prominent, in terms of portraits on the streets and quotations in the press, since the ouster of Khrushchev in 1964. As his tenure as party leader has exceeded that of Khrushchev, the tributes paid to him have surpassed those paid to Khrushchev and are at times suggestive of the cult of Stalin. This does not imply, however, that Brezhnev's power is comparable to Stalin's. He is apparently satisfied to operate as leader of the Politburo and Secretariat without seeking to act as absolute master. It may well be that party leaders are satisfied to exalt him because he consults them, refrains from reorganization, and gives them more security than they ever enjoyed before.

The effusion of praise for the General Secretary left Prime Minister Aleksei Kosygin far behind; he did, however, speak at equal length, also filling seven pages of *Pravda* with the economic report and outline of the tenth five year plan (1976-1980). This presentation was notable only negatively. Generally speaking, since 1928 when Stalin began his ambitious drive for rapid industrialization—to overcome a century of backwardness in ten years, as he once put it—each five year plan has been somewhat less ambitious than the preceding.

The tenth has targets for industrial growth comparable only to what the world economy has achieved over recent decades. The contemplated increase of agricultural production in the next five years is only 14-17 percent, or 3 percent yearly, a remarkably low figure in view of recent poor harvests and in view of the fact that Soviet statistics are congenitally optimistic. The contemplated increase of procurements is insignificant, despite population growth. Yet agriculture and supporting industries are to receive 34 percent of total investment. Per capita income growth to 1980 is projected at 20-22 percent, compared with 24 percent reportedly attained in 1971-1975 and 33 percent in 1966-1970. Investments are to rise 25 percent, compared with 41 percent reportedly achieved in 1971-1975. Rather surprisingly, automobile production is to remain through 1980 at the current level of 1.2 million vehicles per year. A few years ago, the Soviet Union seemed to be hastening into the automotive age; it is no longer. Worse news for the average Russian is that housing construction also is to remain static.

A remarkable feature of the new plan is that it rather frankly looks to foreign economic relations, in effect the import of Western technology, to realize its goods. Another notable directive is the restora-

tion of the priority of heavy industry and producer goods, scheduled to increase 4.9 percent yearly, while consumer goods, theoretically favored by the preceding plan, are to go up at a rate of only 2.7 percent. On closing, Kosygin rated only "stormy prolonged applause."

The only other consequential business was the naming of a new Central Committee, Politburo, and Secretariat. Of the 241 full members of the 1971 Central Committee, only 26 living persons were dropped, the smallest proportional turnover in Soviet history. In 1971, 81 percent of the living members of the Central Committee were reelected; in 1976, 89 percent. More new blood was brought in, however, by expanding the membership to 287. Dmitrii Poliansky was dropped from the Politburo, perhaps as a scapegoat for agricultural failures—he lost his position as Minister of Agriculture a few days after the congress. Poliansky, incidentally, was the last potential challenger to Brezhnev. There were three additions to the Politburo. One was Dmitrii Ustinov, commisar for armaments in World War II and long-time party chief of the munitions industry who succeeded Marshal Grechko as Minister of Defense when the latter died shortly after the congress. Grigorii Romanov, party chief in Leningrad, also rose to top rank. Both Ustinov and Romanov had been candidate members. Geidar Aliyev, Secretary for Azerbaijan, became a candidate member. A KGB official until 1969, Aliyev became the second professional police boss in the 15-man Politburo, after Yurii Andropov. The Minister of Culture, Pyotr N. Demichev, left the Secretariat of the Central Committee, and Mikhail V. Zimianin, editor of *Pravda*, and Konstantin U. Chernenko, a Central Committee functionary and long-time Brezhnev associate, entered. The most exciting act of the congress thus turned out to be less than spectacular, in view of the fact that the quinquennial party congress is the chief occasion for top-level personnel changes.

Broadly speaking, the twenty-fifth congress must have been a severe disappointment to any Soviet citizen who hoped to gain new insights into the workings of the system or who anticipated change. Not only were there no fireworks; there were hardly any perceptible differences of emphasis to intrigue Kremlinologists searching for hints of power struggle behind the scenes. Speeches were pathetically predictable, and no speaker differed with any other or even referred to any other except Brezhnev (to whom all bowed) or Kosygin. In his concluding remarks, Brezhnev appropriately congratulated the congress on its unanimity.

The only dissonant notes came from abroad. In his speech, perhaps in anticipation of dissent, Brezhnev had underlined the importance of "proletarian internationalism," which in Soviet usage means Soviet

direction of the international movement and the Soviet right of intervention in "socialist" countries. He also criticized deviant parties without naming them. Most of the 90 speakers for foreign parties (including some pro-Soviet splinter groups but notably not the ruling North Korean nor the large Japanese party) conformed totally to Soviet expectations, profusely hailing the doctrine that limits their independence. However, the delegates of the Yugoslav, Romanian, Swedish, British, French, and Italian parties had something at least a little different to say.

The Yugoslav and Romanian parties have long since asserted their autonomy and rejection of Soviet control, and their representatives saw no need explicitly to reassert their independence beyond some remarks about working out their Marxist-Leninist destinies. The Swedish speaker, Lars Werner, after polite remarks about Soviet and socialist virtues, mentioned the propriety of each Communist party finding its own special way. The Britisher, Gordon McClelland, went much farther, outlining a socialist system very different from the Soviet, with a plurality of parties, independent unions, and religious and cultural freedom; he called for the right of all Communist parties to express differing views.

More important were the independent views of the two West European parties that have prospects of sharing political power in the near future—the French and the Italian. Perhaps to establish their national credentials, they distanced themselves rather sharply from their Soviet host. Georges Marchais, the French party leader, ostentatiously declined to attend in protest against Soviet criticism. Gaston Plissonnier, the French delegate, in his greeting speech acknowledged differences from the Soviet party in an atmosphere where no differences are supposed to exist and spoke of the "equality of rights and duties" of the various parties, an un-Leninist idea. This was fairly polite, but afterward he called a press conference in the Kremlin press center to deal scornfully with the Soviet use of "proletarian internationalism," to reaffirm the French abandonment of the prime Leninist and Soviet doctrine of the dictatorship of the proletariat, and to reject the Soviet assessment of French foreign policy.

The press conference remarks of M. Plissonnier were not published in the Soviet press; the most dissident words made available to the Soviet reader, if he were diligent enough to pick them out of the mass of colorless speeches, were those of the Italian delegate, Enrico Berlinguer. He spoke of the independence of Communist parties with their different views and experiences, of the necessity for understanding various progressive forces, and of the Italian way to socialism including democracy and freedom for different political forces within a pluralistic system.

The Soviet press did not call attention to such

utterances by responding in any way, nor did other delegates at the congress take note, so far as was reported, of the heresies. However, Brezhnev met with Berlinguer, thereby lending some weight to his presentation. And at least one Soviet citizen, the outspoken physicist Andrei Sakharov, noticed Berlinguer's statement, saw the Italian views as near his own, and felt encouraged thereby.

Aside from these offbeat notes, the complacency and self-congratulation of the congress were total. There was no admission that anything was seriously wrong or that there were any problems, like rising minority nationalism, criminality and ever-growing alcoholism. The fact that the Soviet Union had come through a disastrously bad harvest, the lowest in a decade, with grain production one-third below the revised target, was not to be mentioned, nor could anyone even suggest the need for more incentives in agriculture. The general economic slowdown would seem to dictate a need for reform like the reform instituted in 1965 but never thoroughly implemented and gradually abandoned. The increasing technological lag and the need to import from the West more and more of the innovations that the Soviet economy cannot generate are ultimately menacing to Soviet prospects. Yet there was hardly a hint that not all was well in the Soviet economy; as far as change was mooted, it was discussed in terms of more centralization and more effective party control, tighter planning, the merging of enterprises, and the like, quite the opposite of that relaxation that Western observers feel will be necessary in order to stimulate Soviet performance.

No new policies, no changes of party or government structures or rules were announced. Brezhnev did not even report progress on the draft of a new constitution to replace the one drawn up under Stalin in 1936 (largely by N. I. Bukharin, who was shot as a traitor not long afterward). Work on this project began in 1959, and Brezhnev has headed the commission supposedly drafting it since 1964. Its presentation has been expected or foreshadowed on various occasions since; but even in the production of a document that would presumably have no more operative significance than the present Soviet constitution the system seems incapable of movement.

More striking is the leadership's failure to use the congress to resolve or in any way clarify what may be the key issue of Soviet politics, the succession problem. It must one day be confronted, because Brezhnev is 69 and apparently in less than perfect health. The three next ranking Politburo members, Aleksei Kosygin, Nikolai Podgorny, and M. A. Suslov, who have been next to the top of the hierarchy for a decade, are still older, averaging 72. Suslov, who by the measure of applause may be rated number 2 in the Soviet state, is 74. Also older than Brezhnev is A. P.

Kirilenko, who deputizes for Brezhnev when the boss is absent or indisposed. The average age of the full members of the Politburo is 66; it was reduced less than three months by the few changes made at the twenty-fifth congress. During the last decade, the Politburo has aged nearly a year each calendar year. The Politburo elected in 1971 averaged 60.6 years; the 1966 Politburo averaged 57.5 years. The Central Committee ages, too, although more slowly. The committee chosen at the twentieth congress, 1956, averaged 50 years; that of the twenty-fifth congress, 60 years. With good reason, the Soviet press has ceased chiding the Chinese leadership for senility.

When Khrushchev turned 70 in April, 1964, he was seconded by a group of men 10 to 12 years younger; in contrast, in 1976 the entire top echelon ages together. There is no logical heir in sight because (it must be assumed) the elderly oligarchs want no visible heir. In the Soviet system, power is largely personal and is not firmly conferred by constitutional disposition; hence an heir apparent would be unduly or unbearably threatening to those who prefer not to have to measure themselves against more vigorous younger men. It is notable that those most recently ousted from the Politburo were the two youngest members, A. N. Shelepin and D. S. Polyansky, born in 1918 and 1917 respectively.

It thus does not appear that the congress decided anything at all; it was not even used to bring up any possibility of change. There was nothing in its meetings (although more may have gone on than was published, since Western correspondents were excluded) of ideological interpretations, of problems of Soviet science, literature, or art, alcoholism, criminality, the frictions of minority nationalities, or any of the unsolved problems of modernity that beset the Soviet Union. The congress proceeded practically as though it was cut off from the realities of Soviet life, suspended in a murky sea of political clichés. It seemed to reflect only the desire of the party that everything must be for the best and should continue as far as possible without change, in a mechanical repetition of the vague party line.

Thus the congress seems to have been little more than a formality, a show with little more interest or originality than the voting of presidential electors in

(Continued on page 129)

Robert G. Wesson has published several books on the Soviet Union, communism and related topics, including *Soviet Foreign Policy in Perspective* (Homewood, Ill.: Dorsey, 1969); *The Soviet Russian State* (New York: Wiley, 1972); *The Russian Dilemma* (New Brunswick: Rutgers University Press, 1974); and *Why Marxism?* (New York: Basic Books, 1975). He is associate editor of *The Quarterly Journal of Ideology*.

"The systematic, hierarchical and politically calculated allocation of privilege in the Soviet Union (reflecting meticulous attention to the functional importance of different social groups) has no precedent or parallel in modern times."

Soviet Society Today

BY PAUL HOLLANDER

Professor of Sociology, University of Massachusetts at Amherst and Research Fellow, Russian Research Center, Harvard University

ACCORDING TO SOME recent studies, Soviet society is not significantly different from other societies at comparable stages of development; therefore, its analysis does not call for theories different from those applied to other societies, past and present. For example, while one group of American social scientists has been showing with apparent relish that the democratic "façades" of American society conceal the concentration of political power and the domination of society by various affiliated elite groups, other scholars have been discovering with corresponding enthusiasm that the monolithic "façade" of Soviet society conceals interest-group politics, bargaining, and incipient pluralism, as well as various restraints on the power of the apparent rulers. Thus, in the last decade or so, the growing imputation of pluralism to Soviet society has been paralleled by the increasing denial of pluralism in American society.¹ It is not easy to decide in what measure these perceptions derive from a realistic assessment of social change in the Soviet Union, from the distaste for such emotive words as "totalitarianism," or from the seemingly irrepressible American belief that a pluralistic-democratic social system is the wave of the future and the inevitable outcome of high levels of economic development.

The importance increasingly attributed to economic development is mirrored in the shift in the use of concepts most frequently applied to the Soviet Union. In the past, scholars focused on the political—on the

totalitarian, authoritarian, "imperfectly totalitarian," monistic, "monohierarchical" aspects of Soviet society; more recent concepts stress development, industrialization, modernity, bureaucracy and complexity, which have more affinity with matters economic. This is not to suggest that there has been any dramatic new theoretical synthesis in the study of Soviet society in the 1970's; the distinction between the two ways of regarding the Soviet Union is more the difference between the 1950's and 1960's.² This discussion will reflect in some degree both political and economic approaches.

Today, the Soviet regime is concerned with the low birth rates and high divorce rates that are seen as threatening the institution of the family and diminishing the supply of labor. Low birth rates are also undesirable from the standpoint of power politics, unfavorable because they affect the military might of the Soviet Union in relation to China. The frequently interconnected public discussions on divorce and on childless or one-child families reflect a mixture of these pragmatic concerns in addition to apprehension over the increase in family instability, the associated erosion of moral standards and threats to the proper upbringing of children. According to an article in *Pravda*:

The existence of one-child families lessens the stability of family ties. There is reason to believe that a large number of divorces are to a certain degree connected with the fact that the absence of children or the presence of just one child makes the breakup of the family less complicated both psychologically and socially. In turn, the fragility of marriages creates, mainly among women, a psychological inclination to have only one child in the family. . . . The one-child system creates a danger of the formation of a consumer attitude toward life. . . .³

Presumably in response to official encouragement, Soviet social scientists have marshalled a wide range of arguments against childless or one-child families. They insist that only children are spoiled, individual-

¹ See also Paul Hollander, *Soviet and American Society: A Comparison* (New York: Oxford University Press, 1973), pp. 110–111, 418–419.

² This is also confirmed by a recent survey of texts in Soviet studies. See Eric Hoffman, "The Soviet Union: Consensus or Debate?" *Studies in Comparative Communism*, fall, 1975, esp. pp. 236–237 and 242.

³ Professor D. Valentei, "Problems of Social Life: On Demographic Behavior," *Current Digest of the Soviet Press* (abbr. CDSP), September 13, 1972, p. 14.

istic, and lacking in social discipline. As long as the Soviet leadership continues to make considerable demands on the population, is unwilling to commit itself to a consumer economy, pursues ambitious foreign policy goals and maintains the largest military establishment in the world (in terms of the combination of manpower and firepower), a disciplined, compliant and docile population remains desirable. Hence it is important that the family should not become the cradle of hedonism, individualism, "consumer attitudes" and unduly high expectations, material or spiritual.

Large and intact families (with both parents living with the children) are also strongly supported, because of the well-established correlation between broken families and juvenile delinquency, reported in many Soviet⁴ (as well as Western) studies.

The values of the regime and popular aspirations, notably those of women, collide most spectacularly in the realm of family size and structure. Authoritative sources repeat tirelessly that "A family of three children is the point at which society's interest and the correctly understood interests of the parents coincide."⁵ Couples are urged not to postpone having children since this leads to lower population growth. In the same spirit, Perevedentsev, the leading demographer, cautions against late marriages, which, he believes, lower birth rates and contribute to marital instability: "When people marry young adaptation to each other is comparatively easy." But, most important, a reduction in the average age of grooms and brides at marriage could substantially increase the birth rate.⁶

Although there is no evidence that Soviet women question sex roles as radically as many American

⁴ Kharchev, for example, noted that "children raised by mothers alone are three to four times as likely as children raised by both parents, to become involved in crime." See "Today's Family and Its Problems," *Zhurnalista*, transl. CDSP, March 21, 1973.

⁵ Professor B. Urlanis, "Father, Mother and Three Children," *Literaturnaya gazeta*, CDSP, December 27, 1972, p. 8.

⁶ "Time to Get Married," *Soviet Sociology*, spring, 1972, pp. 378, 381.

⁷ "One, Two or Three?" *Literaturnaya gazeta*, transl. CDSP, November 7, 1973, p. 14.

⁸ D. Novoplansky, "Reflections on Letters: Concerning the Family with Many Children," *Pravda*, transl. CDSP, December 27, 1972, p. 8.

⁹ The highest divorce rates prevail among Latvians (4.2 per thousand population) and Russians (3.7) and the lowest among the Armenians (1.0), Tadzhiks, Uzbekhs and Kirgiz (1.1). See *Problemy byta, braka i sem'i*, Vilnius, 1970, p. 115.

¹⁰ Although limited in scope, and suffering from the lack of commitment to fundamental change, the official concern with the problems of working women is not purely rhetorical. One reflection of such concerns is the large volume of sociological research inspired by the desire to improve the situation. A good example of such research is the conference volume entitled *Dinamika izmeneniia polozhenii zhenshchiny i sem'ia*, Moscow, 1972.

women, they have clearly gone on record in rejecting the official demands for larger families, "voting" by means of abortions and contraceptives. One striking survey established ". . . that nearly everyone who opposes the single-child family in theory has only one child in fact, and no intention of having any more." The survey conducted by Moscow University's Department of Economics among 5,000 married women aged 18-40 found that while 60 percent regarded two children as the ideal, in fact only 18 percent had that number; 36 percent favored three children but only 1 percent actually had that many; although only 3 percent favored one child, 64 percent actually had only one!⁷

As long as abortion and birth control are available, it is unlikely that the regime will be able to raise the birth rate:

. . . photographs of mothers of many children are nowhere to be seen. Maternity medals and orders are often presented without the proper publicity. Schoolchildren . . . are never introduced to hero mothers [those with more than 10 children] or to women who have received the Order of Maternal Glory. But after all this is very important—we should constantly instill respect for motherhood and special respect for mothers with large families. . . .⁸

It is noteworthy that when Soviet demographers lament the low birth rates they are actually referring to the birthrates of one part of the Soviet population (Russians, Belorussians, Ukrainians and Baltics), ignoring the fact that many Soviet minorities have far higher birth rates. (Correspondingly, divorce rates are much lower among many ethnic groups.)⁹ It is this state of affairs that prompted the American ethnographer, Ethel Dunn, to ask, ". . . is Perevedentsev afraid of being swamped by Central Asians, Kazakhs, Caucasian peoples, etc?" Her letter to *Literaturnaya gazeta* was never published, and its brief published summary made no reference to her question. In his lengthy reply, Perevedentsev totally ignored it. He did, however, respond to her criticism of his suggestion that women should be paid to stay at home and rear children, proposing that "it is necessary to find means for the optimal combination of the woman's role in the family with all her other roles."

The assumption remains that it is women who have several roles (work, familial) that are to be reconciled. They are to be given whatever help is possible; nonetheless, no fundamental restructuring of sex roles within the family is envisioned.¹⁰

It is perhaps a measure of the liberalization of the Soviet system that it refrains from trying to raise birth rates by making birth control as difficult as it was in the past and has apparently resigned itself to high divorce rates. Although some official and semi-official commentaries on divorce carry the old-fashioned,

moralizing undertones, the analysis of the causes of divorce seems sound and casts doubt on the often simultaneous assertions of the superior durability and strength of the Soviet family compared with families in bourgeois societies. H. Kharchev has noted, for example, that:

While the growing prosperity since the end of World War II has strengthened the family, the positive influence is not as direct as had been expected. Life shows that improved conditions and equal rights for both sexes do not automatically strengthen the institution of marriage. There are still considerable numbers of divorces—600,000 per year, compared to 2 million marriages. Many sociologists propose developing a comprehensive program of sex education for young people of all ages aimed at preparing them for marriage and family life. . . . The present inadequate emotional upbringing of young people—for which our schools and press are both responsible—is the basic underlying cause of divorce. . . .

A crucial problem that affects family stability is the conflict between a woman's career and her household duties. . . .¹¹

While his faith in the salutary effects of sex education in stabilizing marriages is questionable, Kharchev is undoubtedly correct in discerning a relationship between higher standards of living, the career demands of women, and higher divorce rates. To be sure, the conflict between work and home is hardly a recent development.¹² What is probably new is the lessened willingness of women to accept the resulting frustration. On the other hand, the contribution of higher Soviet living standards to marital instability is more recent. In the U.S.S.R., as elsewhere, more prosperous families are usually also better educated, and better educated families have fewer (or no) children. Heightened expectations, combined with the decline of the traditional restraints on divorce, contribute to family disintegration.

¹¹ A. Kharchev, "Today's Family and Its Problems," *Zhurnalista*, transl. CDSP, March 21, 1973, p. 19.

¹² "Most women work a double shift—one on the job, one at home, destroying their femininity, beauty and youthfulness. They spend about 40 hours a week on housework . . . while men spend only 15 to 20 hours on it." "Love and Family Today," *Molodoi komunist*, transl. CDSP, May 12, 1976, p. 1.

¹³ Factors and processes associated by Soviet sociologists with modernization and rising divorce rates are very similar to those mentioned by their Western colleagues. See, for example, pp. 116–121 in *Problemy Byta, Braka i Sem'i*.

¹⁴ V. Shiliapontokh, "Acquaintanceships and Weddings," *Soviet Review*, spring, 1972. Manuals designed for popular appeal, and advising people about the problems of love, sex, family and marriage are also beginning to make an appearance in the U.S.S.R. A good example is A. Beliavskii and E. Finn, *Liubovi' i kodeks*, Moscow, 1973. The volume is also recommended for party propagandists, agitators and members of comrades' courts. In a more recent article, "compatibility counselling services" were recommended. See "Love and Family Today," in *Molodoi komunist*, transl. CDSP, May 12, 1976, p. 3.

¹⁵ Ada Baskina, "A Little Family Quarrel," *Literaturnaya gazeta*, transl. CDSP, May 23, 1973, p. 14.

MODERNIZATION

Despite Soviet claims, some aspects of modernity and the expectations it generates contribute significantly to rising divorce rates in the U.S.S.R. as they do in the United States.

Modernization affects the family by generating higher expectations, associated with better education and material living conditions. It also eliminates the family's traditional social supports, because social and geographical mobility erode community and kinship ties.¹³ Modernization also reduces the functions of the family by reducing its economic and educational roles. When social and geographical mobility opens up a vast potential marriage market, individual choices and decisions become the major criteria for marital selection, and the process is no longer effectively supported by widely shared social values and normative standards. If modernization leads to growing moral confusion, it should not be surprising that people begin to look for rational, organized solutions to intimate personal problems.

Americans are familiar with the proliferation of dubious experts, the endless varieties of counseling and therapy, advice columns in the press, manuals promising the easy, step-by-step conquest of every personal problem, computer matching, dating bureaus—the enormous paraphernalia of aides and guides our society has conjured up to provide substitutes for efficient and consistent early socialization. It is more surprising that suggestions have been made (and received with enthusiasm) in the Soviet Union, to introduce "electronic matchmakers" (and matrimonial bureaus) to make it easier for people to meet and because many people believe "a computer could spare us many mistakes."¹⁴ The possibility of computer dating or matchmaking in the Soviet Union (yet to be implemented) reflects the decline of traditional guidelines to mate selection and symbolizes the anonymity of modern mass societies. Perhaps the Soviet interest in computer matching is also an indication of the still growing Soviet admiration for the marvels of technology and science.

Many articles in the Soviet press these days urge sex education and/or marriage counseling (there is a "crying need for a broad network of bureaus to provide counseling on the subject" in a "tactful, sensitive, delicate manner"). Others insist that the difficulty lies in not acknowledging the psychological differences between men and women.

. . . doctors cite a wide range of sex differences that give rise to marital difficulties. For one, it is common knowledge [sic] that women tend to be emotional and men more rational, that women rely more on intuition and men on logic. Another normal difference is that at certain times women are irritable and supersensitive.¹⁵

The problems of the Soviet family are intimately intertwined with the conflicts between modernization

and the vigorous survival of traditional sex role differentiation, and the conflicts between the official values that prescribe large families and the popular preference for small families based on hedonistic-individualistic attitudes. In the realm of family planning and personal relationships the individualistic and private values of Soviet citizens take clear precedence over public and social values. By means of divorce and small families, the Soviet people seek satisfaction denied elsewhere.

In the long run, family instability and disintegration could become truly subversive forces in Soviet society, undermining social cohesion. While the conflict of generations in Soviet society (another phenomenon related to the decline of the stability, authority and relevance of the family) is not nearly so advanced as it is in the United States, it has made an appearance and has been greeted by considerable official nervousness. Soviet authorities are justifiably concerned with the contribution of this conflict to the weakening of perceived historical continuity and the legitimacy of the regime. They know that it is hard to reject one's parents without rejecting all authority and the social order associated with authority. Soviet authorities also know that if (despite the paraphernalia of official social organizations and institutions involved with socializing the young), the family fails to perform its basic socializing functions, the job will not be done, or not done well enough. In particular Soviet authorities know that the basic knowledge of authority is taught in the family.

SOCIAL EQUALITY AND ASPIRATIONS

Not even Soviet officialdom denies that Soviet society accommodates and even nurtures a wide range of inequalities. That Soviet citizens are unequal in regard to income, access to education, occupational prestige and material standards of living is not in dispute. What the officials would argue about is the extent of inequalities and their source and legitimization. The first line of defense is a denial of the scope of inequalities. In particular, official discussions carefully avoid reference to the wide variety of non-monetary privileges that are among the important reflections of inequality. A network of special shops, resorts, hospitals, clinics, nurseries, travel privileges, housing, and so on, reserved for political elite groups and their families, is excluded from any discussion of income differentials. Yet such privileges are crucial to the Soviet class structure, which in some respects differs from the class structure of other contemporary industrial societies. The systematic, hier-

¹⁶ V. Shubkin, "The Beginning of the Road—Reflections on Choosing an Occupation," *Novy mir*, transl. CDSP, June 2, 1976, pp. 10-12.

¹⁷ Hedrick Smith, *The Russians* (New York: Quadrangle, 1976), pp. 464-465.

archical and politically calculated allocation of privilege in the Soviet Union (reflecting meticulous attention to the functional importance of different social groups) has no precedent or parallel in modern times. It is more reminiscent of feudal Europe, where status groups were deliberately created or maintained and political loyalty was purchased or rewarded by the granting of titles, land or other forms of economic privilege by the kings or princes.

While many privileges and status advantages are the result of deliberate official policy, unofficial, or "natural" transmission of socioeconomic advantage within the family is another important source of inequality. In Soviet society, as elsewhere, levels of aspiration, aptitude and motivation vary with social class; and for the most part parents make sure that their children's social status will not fall below their own. Numerous Soviet studies indicate that educated parents produce educated children and that levels of aspiration vary significantly among social classes. Thus, a recent article found that while children of collective farmers aspired to become industrial workers, the offspring of the latter wanted to work in offices while the offspring of the intelligentsia had no desire to join either the kolkhoz peasantry nor the ranks of industrial workers but wanted to follow in the parental footsteps.¹⁶

More serious from the regime's point of view is the fact that evidently few people in the Soviet Union have any interest in unskilled or low skilled manual labor. Such occupational preference is far from irrational. In the Soviet society as in most other societies, the more highly skilled and specialized jobs are better paid and less tiresome and less debilitating; they also tend to be more interesting. Not even a socialist economy can make most jobs interesting. Thus not only incomes but job satisfactions are unequally distributed.

The persistence of social inequality has been accompanied by the development of middle class attitudes. The components of these attitudes are clear enough to discern. The Soviet middle classes, that is to say, professionals, the intelligentsia, bureaucrats and technocrats, are characterized by a lust for possessions and comforts which has no parallel in contemporary Western societies.¹⁷ They also are strongly committed to stability and order; they respect au-

(Continued on page 137)

Paul Hollander is the author of *Soviet and American Society: A Comparison* (New York: Oxford University Press, 1973) and the editor of *American and Soviet Society: A Reader in Comparative Sociology and Perception* (Englewood Cliffs, N.J.: Prentice Hall, 1969). He has also written numerous articles on various aspects of Soviet society.

BOOK REVIEWS

ON THE SOVIET UNION

DÉTENTE AND DOLLARS: DOING BUSINESS WITH THE SOVIETS. By MARSHALL I. GOLDMAN. (New York: Basic Books, 1975. 337 pages, appendices and index, \$15.00.)

This sober well-written book does much to bring needed common sense and historical perspective to discussions of prospects for significantly expanding trade with the Soviet Union. Goldman examines the record, setting forth in sharp detail some specific cases; he concludes that political considerations should not be divorced from economic transactions and that long-term contracts with the U.S.S.R. entail many risks for American businessmen. Anyone interested in the economic dimension of the evolving Soviet-American relationship will find this book indispensable.

Alvin Z. Rubinstein
University of Pennsylvania

WHY MARXISM? THE CONTINUING SUCCESS OF A FAILED THEORY. By ROBERT G. WESSON. (New York: Basic Books, 1976. 281 pages and index, \$12.95.)

This is an original analysis of the persisting attraction of twentieth century marxism. The author's scope is as broad as his touch is sure. He looks at the uses to which the ideas of Marx have been put, their transmutation in the Russian, Chinese, and Western environments, and their relevance today. The book should be of interest to anyone concerned with contemporary ideologies and Communist movements.

A.Z.R.

ANTIRELIGIOUS PROPAGANDA IN THE SOVIET UNION. By DAVID E. POWELL. (Cambridge: The MIT Press, 1975. 206 pages, bibliography and index, \$25.00.)

A Soviet official once remarked: "Religion is like a nail; the harder you hit it, the deeper it goes into the wood." Powell analyzes the phenomenon of religion in the Soviet Union with scholarly objectivity. He takes a fresh look at Soviet efforts to destroy the church and reorient the beliefs of a deeply religious people.

A.Z.R.

SOVIET FOREIGN POLICY 1962-73: THE PARADOX OF SUPER POWER. By RORIN EDMONDS. (New York: Oxford University Press, 1975. 197 pages, selected bibliography and index, \$12.50.)

In 18 brief essays a British diplomat discusses the highlights of more than a decade of Soviet foreign policy. The intelligent and synoptic perspective covers such topics as the Cuban missile crisis, the Nikita Khrushchev era, the Sino-Soviet rift, and American-Soviet relations. The author believes that the nuclear stalemate, the East-West technological gap, and Soviet economic difficulties will restrain Soviet ambition and help to maintain the equilibrium between the Soviet and Western worlds.

A.Z.R.

SOVIET SCHOLARS AND SOVIET FOREIGN POLICY: A CASE STUDY IN SOVIET POLICY TOWARDS INDIA. By RICHARD B. REMNEK. (Durham, North Carolina: Carolina Academic Press, 1975. 343 pages, bibliography and index, \$11.00.)

This study explores the relationship between Soviet scholars and the evolution of Soviet policy toward India.

A.Z.R.

ARMS FOR THE ARABS: THE SOVIET UNION AND WAR IN THE MIDDLE EAST. By JON D. GLASSMAN. (Baltimore: The Johns Hopkins University Press, 1976. 213 pages, selected bibliography and index, \$12.50.)

This examination of Soviet arms policy toward the Arabs—especially the Egyptians—brings together a great deal of information about the types and quantities of weapons provided by Moscow since 1955. The focus is on the Arab-Israeli wars of 1956, 1967, and 1973, and on Moscow's response to them. The author believes that, in October, 1973, the U.S.S.R. encouraged the Arabs to continue the war out of a desire to show its support for the "progressive" movement and a belief that the United States would not act decisively against the U.S.S.R., Egypt and Syria.

A.Z.R.

SOVIET ECONOMIC AND POLITICAL RELATIONS WITH THE DEVELOPING WORLD. EDITED BY ROGER E. KANET AND DONNA BAHRY. (New York: Praeger Publishers, 1975. 242 pages and index, \$17.50.)

The twelve papers in this volume were originally presented at the First International Slavic Conference, held in Banff, Alberta, Canada, in September, 1974. They deal with aspects of Soviet economic and political relations with key third world countries.

A.Z.R. ■

SOVIET MILITARY CAPABILITIES

(Continued from page 100)

them by Khrushchev. They were restored as an independent command in 1967. The theater warfare capability of the Ground Forces—whose elite is concentrated in the four "Groups of Forces" (GSFG in East Germany, Northern in Poland, Central in Czechoslovakia and Southern in Hungary, totaling 31 divisions, 15 armored and 16 motor-rifle)—has been steadily expanded and modernized. That expansion has produced an increase in manpower of some 100,000–120,000, a growth in tank strength (in GSFG, for example, from a little over 5,300 to 7,000), the introduction of a new main battle tank (the T-72) and no less than five battlefield air defense systems, five artillery systems and two infantry fighting vehicles (the BMP with its triple anti-tank armament and the BMD for use with airborne troops).

Gone are the days when one could point to glaring weakness in Soviet logistics as the real brake on Soviet performance; trucks with greater load-carrying capacity, petrol bowsers, improved assault bridging equipment, and battlefield engineer vehicles have transformed this scene. Soviet divisions in East Germany (20 divisions, 10 tank and 10 motor-rifle) maintain ammunition stocks for 37 days and POL supplies (petrol, oil and lubricants) for 16 days, all without calling on East German stockpiles.¹⁸

What is perhaps most interesting is the development in Soviet European theater forces of a genuine "dual capability," designed both for nuclear and conventional operations. Nuclear capability has been strengthened recently (with improved FROG and SCUD battlefield missiles, as well as increases in warhead stocks); at the same time, the rapid growth in conventional artillery and ammunition stocks and the reorganization of assault formations (tank and motor-rifle) suggest that the Soviet command has embraced the "conventional option" in its own right. But let us be clear here: the Soviet command understands that conventional operations in the initial phase of any European campaign are both feasible and desirable, but nuclear weapons remain to hand (not to mention a very considerable capability for chemical

¹⁸ For more detailed studies, see my own paper "Soviet Ground Forces and the Conventional Mode of Operations," in *Journal of the Royal United Services Institution for Defence Studies*, June, 1976, pp. 45–49 (and its successor in the September, 1976, issue, "Soviet Breakthrough Operations: Resources and Restraints").

¹⁹ See A. A. Grechko, *Vooruzhennye sily Sovetskogo gosudarstva*, 2nd ed. (Moscow: Voenizdat, 1975), pp. 196–97. For an excellent analysis of the Soviet position, see Phillip A. Karber, "The Soviet Anti-tank Debate," *Survival*, 1976, no. 4, pp. 105–111.

warfare). Present developments are in the direction of "combined-arms" operations, reflected in the increase of artillery, anti-tank and battlefield air defense capabilities, with the tank forces embracing a new relationship with the motor-rifle troops in the light of the possibility of a conventional breakthrough operation against a prepared defense.

In fact, two difficulties face the Soviet Ground Forces command. The command must adapt equipment designed initially for the nuclear battlefield to conventional operations (the infantry fighting vehicle, the BMP, is a good example) and must absorb the lessons of the 1973 Middle East war, in particular, the potency of anti-tank weapons.¹⁹ That factor, combined with the stiffening of the defense by means of improved munitions (PGM's and the like) could lead to further pressure for Soviet preemption, that is, striking before the defense has concentrated and achieving Soviet objectives by maneuver rather than by sustained assault.

Although a Soviet military build-up has continued in the Soviet Far East since 1969, this has had little effect on modernization in the European theater. Of the 45 Soviet divisions in the Far East, perhaps only one-third are at full operational readiness, as opposed to all divisions in the European theater. Recently, Soviet forces in Mongolia were reinforced with an extra motor-rifle division, MiG-25 advanced interceptor and high-altitude aircraft moved to the Far East, and naval forces substantially strengthened. Suffice it to say that the Soviet reinforcement in the Far East cannot be assumed to be the factor underlying an expansion in Soviet forces. The full impact of that expansion has been felt rather in the European theater, where at present the 20 Soviet divisions in GSFG have the firepower and the assault capability of 25 divisions of yesteryear. The high visibility of Soviet military power in Europe and high minimum force levels also work their effect on European politics at large, both in the flanks and at the center. One can argue that the political utility of these forces, both within East Europe and beyond, is considerable.

The element that provides greater "reach" for Soviet power and presence is the Soviet air force, the greatest beneficiary (in terms of total expenditure) of the build-up over the past few years. Here is the same infusion of numerical strength. Some 30–40 plants supply the Soviet air force with over 1,800 aircraft per year (half of them advanced front-line aircraft, plus 700 helicopters), thus furnishing a tactical air park of 4,500 modern aircraft built up since 1970. The present drive is concentrated on advanced tactical aircraft with an offensive capability, as opposed to the previous over-reliance on defensive

(Continued on page 135)

THE PARTY CONGRESS

(Continued from page 122)

the United States. It undoubtedly served some minor functions. Worthy party functionaries and a few symbolic dutiful welders or weavers were rewarded with the honor of participation in the formally supreme party body, successor of Lenin's congresses, so they could feel the glow of authority as they listened to the great and registered their approval. It also afforded an opportunity to visit Moscow, to meet old acquaintances, and shop in the special stores of the capital. But the principal purpose of the congress was undoubtedly to demonstrate the firm and unchallengeable unity of the party. It was also an opportunity to emphasize worldwide support for its goals.

The Soviet Communist party is something even greater than the governing organization of the immense Soviet realm; it is the admired leader of numerous countries and of "progressive forces" everywhere. To underline this point, the report of the party's "debates" gave much space, about one-third of the total, to the verbal tributes paid by foreign delegates, mostly as predictable as the congratulatory messages of foreign governments.

Although much is said about the inspiration of the congress and the enthusiasm with which factories and various collectives set about fulfilling its decisions, the involvement of the citizens is certainly no part of its purpose. The dullness with which proceedings of the congress are presented to the Soviet people is beyond any conceivable stupidity of the propagandists. The people are given only endless, mostly stereotyped speeches, acclamatory statements, and a few editorials containing virtually nothing Soviet citizens have not heard 100 times before. There is no commentary, no analysis, no human interest story, not even a summary of major speeches. For example, to get an idea of what the party has in mind for the economy, a Soviet citizen would have to plow through Kosygin's bone-dry mass of details to pick out what he might judge were the most significant figures and to evaluate the emphases. The Soviet citizen was not enlightened about leadership changes. The names and portraits of Politburo members were published, but only by comparing them with a previous list could one tell who had been added or dropped. No biographical sketches, even of the most formal nature, lent interest to personalities: The Soviet people are to know only how the party cares for them and is building socialism, and how they should strive to fulfill the goals of the party. It is not desirable that they should take an interest in political affairs.

In Soviet histories, the party congresses mark epochs in the historic struggle of the party for the building of the perfect society. The twenty-fifth congress is indeed memorable as the reflection of the

latest stage in the evolution of vital revolutionary emotions into the placid, comfortable existence of a ruling élite for which social change is past and all questions are answered. ■

ENERGY RESOURCES

(Continued from page 118)

ton.³⁰ With the growing distance between the production and consumption centers, and the increasing importance of deep drilling, off-shore exploration and tertiary recovery methods, the incremental productivity of capital is destined to decline even further in the next decade.

SOLID FUELS

Solid fuels were the mainstay of the Soviet energy economy throughout the Stalin years, contributing almost four-fifths of total production and consumption in 1950. The belated recognition of the economic effectiveness of oil and gas, coupled with much greater rationality in investment decisions for prospecting and exploration, has vastly expanded hydrocarbon reserves and the output of these quality fuels at the expense of coal, lignite, peat and shale. On an equal calorific basis, coal and lignite account for three-tenths of all energy production; peat, shale and firewood contribute under 3 percent, but locally their role remains significant in a few areas of the U.S.S.R.³¹

Since 1950, the production of coal (including lignite) has been growing much more slowly than oil and gas production, with the annual rate of expansion falling to 2.05 percent in the 1960's (a mere 1.5 percent when measured in calorific content). In the present decade, however, growth rates have picked up again, registering 2.35 percent per annum between 1970 and 1975, with planned rates of 2.43–2.93 percent for the coming 5 years. The U.S.S.R. has long been the leading coal producer in the world, with a 1975 output of 701 million tons, which in hard coal (standard fuel) equivalent, however, adds up to only 490 million tons, rather less than the United States total. The 1980 plan calls for 790 million–810 million tons.

Soviet coal reserves are vast, adequate for many hundreds of years. Faster growth in output is hindered by cost factors and capital needs, location and transport constraints and somewhat restricted markets and, to a lesser extent than in the United States, by environmental problems.

In the European U.S.S.R. and the Urals, demand far exceeds supply, and power stations alone could use far more coal than is available. In these regions, which produce over half of all Soviet steam coal as

³⁰ Lalaiants, *op. cit.*, p. 28.

³¹ Lalaiants, *op. cit.*, p. 26.

well as coking coal and virtually all its peat and shale, solid fuels cover only about one-fourth of all fuel consumption (48 percent in power stations, 33 percent under industrial boilers and, excepting coking coal needs and peat and firewood cut by rural households, virtually no other demand). Over the next decade, however, there is no chance to expand the output of coal in the European provinces by more than 40 million tons of SF equivalent and the output of all solid fuels by more than 50 million-60 million tons.

The famed Donbas produced 220 million tons (82 million tons of coking coal, 138 million steam coal) in 1974, 32 percent of the Soviet total. However, one-third of all production was to come from depths over 700 meters and, by 1980, two-fifths; with 80 percent originating from seams of less than 1.2 meters thick.³² Much of the coal must still be extracted manually, and labor constraints are also serious.³³ Under these conditions, capacity increases for steam coal during the next 10 years will not exceed 30 million tons. Supplies from the smaller coal fields and from the shale and peat reserves of the European U.S.S.R. are capable of only limited expansion. Only the big Pechora Basin, equally difficult geologically and beyond the Arctic Circle, could physically furnish large increments and only after a very long lead time. Expansion in this basin is primarily for coking coal and will remain so.

Solid fuels produced west of the Urals are also expensive. With a 15 percent capital charge, coal costs at mine mouth approximate 17 rubles per ton of standard fuel for steam coal in the Donbas and reach 20-24 rubles in parts of the Pechora Basin and in the Moscow lignite field (with a 12 percent interest charge, costs are about one ruble lower). Shale and peat cost less, but their supplies are far more limited, and they are not transportable. Therefore, virtually everywhere west of the Volga, the delivered cost of solid fuels per ton of SF is above 18 rubles. Fuel oil today delivered to market centers costs half that much, and natural gas from deposits of the European provinces costs only a fraction of that. Even Siberian and

³² Donetskii nauchno-issledovatel'skii ugołnyi institut, Sbornik no. 43, *Sovershenstvovanie gornogo khoziaistva shakht Donbassa* (Donetsk, 1968), pp. 5 and 9.

³³ In the central part of the Donbas, where most of the coking coal originates, 70 percent of the coal is still extracted with pneumatic drills. The 1974 plan was fulfilled only by having half a million miners work through most weekends and holidays in actual violation of the labor code. *Sotsialisticheskaya industria*, February 2, 1975.

³⁴ Yearly output in the Kansk-Achinsk basin could allegedly be raised to 580 million tons (2.8 times more than all strip mined output in the USSR today), representing 240-300 million tons of SF, with virtually no increase in cost from worsening geological conditions.

³⁵ However, the redesigning of boilers to enable plants to switch from high quality Kuzbas coal to inferior Kansk-Achinsk and Ekibastuz ones will be a costly undertaking.

Central Asian gas, piped in from 2,500-3,500 kilometers, can be delivered several rubles cheaper than coal from any of the European deposits. With such a difference between the marginal costs of different fuels, all European regions could reap large savings by a more rapid and intensive substitution of gas and oil. However, the drastic rise in the export prices of oil and gas and the growing needs of East Europe have slowed the pressure to substitute these fuels for coal, even in the European U.S.S.R.

The most economic coal resources (and those capable of the greatest expansion) are all found east of the Urals, with the Kuzbas and Kansk-Achinsk Basin in Siberia and Ekibastuz in northeast Kazakhstan the most important. Most of these deposits easily lend themselves to strip mining; and the two latter areas can produce energy at a cost lower than all oil fields and virtually all natural gas reservoirs in the country.³⁴ Most of the cheap surface coals of Siberia and Kazakhstan, however, are of too poor quality to serve for anything but boiler—primarily power station—fuel and are transportable for only short distances. Kansk-Achinsk lignite does not yield easily to briquetting and is liable to self-combustion, while the high ash content of Ekibastuz coal prevents its haulage beyond the western slopes of the Urals. Of all eastern coals, only Kuzbas coal can be moved west of the Volga, doubling in cost by the time it reaches Moscow.

To the chagrin of pro-Siberian planners, the development of the vast Kansk-Achinsk deposit has so far proceeded very slowly, with production reaching only 21 million tons (10 million-11 million tons of SF). Not only is the local market restricted, but power station use for this lignite is further limited by the availability of very cheap and abundant hydroelectricity in the region, with large potentials still untapped. The 1980 plan, however, calls for an 80 percent increase in output and the construction of new pits. Current research has begun to focus on the enrichment and briquetting of this lignite to permit large scale transportation at least to the Kuzbas and eventually to the Urals and beyond. Even in the Urals, Kansk-Achinsk coal would be competitive with most other forms of energy, and the move would also free Kuzbas coal (and even some fuel oil) to energy deficit regions in the European U.S.S.R.³⁵ Breakthroughs in the cost of very long distance electric power transport and coal slurry pipelines would also expand the range of Kansk-Achinsk lignite.

While an eventual solution to the massive use of these vast reserves is imperative for the Soviet energy economy, until the early 1980's, primary emphasis is being placed on the maximum exploitation of the Ekibastuz field and the faster development of strip mining in the Kuzbas. Very cheap to mine and located only 1,100 kilometers east of the Urals, Eki-

bastuz coal can compete effectively as power station fuel even with Siberian and Central Asian gas or fuel oil as far west as the River Volga. Its energy can also be transmitted to the Urals economically via alternating current, using existing transmission technology. With 52 million tons of strip mining capacity today, almost one-fourth of the Soviet total, the basin's output is slated to grow by another 20 million tons in five years, and to reach 100 million tons during the 1980's. A major effort seems to be under way to substitute this fuel for oil and gas under large power station boilers in the Urals and even in the Volga regions. Production in the Kuzbas should increase by almost 30 million tons, to reach 161 million tons by 1980; it may approach 200 million tons by the end of that decade. Over two-fifths of the basin's output is coking coal and will remain so. Ekibastuz, the Kuzbas and the Kansk-Achinsk Basin will account for roughly two-thirds of all increment in coal production between 1975 and 1980 and more afterward. Most of the rest will also come from fields east of the Urals. These expansions will further raise the share of open cast methods in coal production, currently providing three-tenths of the Soviet total.

HYDRO AND NUCLEAR POWER

The importance of primary electricity in total energy supply should not be overestimated, even in countries with mainly hydro-based generating capacity or rapid nuclear development. In the U.S.S.R., ideological bias, a penchant for hugeness and a long-term distorted view of capital in project selection have tended to favor capital intensive hydroelectric plants, whose operating costs are generally low. Not counting outlays on transmission and distribution, hydroelectric stations received more than half of all investment in the electric power industry during the 1950's and accounted for almost two-fifths of the value of new fixed assets from 1959 to 1965. Yet for only a few brief years in the late 1950's and early 1960's did they account for more than 20 percent of the total installed capacity, and they never accounted for that much of total production. Even including the Caucasus, the European U.S.S.R. produced a mere 13 percent of electricity at hydrostations in 1970. By contrast, in the Asiatic part of the country, one-third of all electric power was generated by hydroplants, with East Siberia standing out with an exceptionally high 64 percent share.³⁶ The contribution of hydroelectricity to total energy supplies, therefore, reached a mere three percent in the European provinces and remained under one-tenth even in the Asiatic U.S.S.R. as a whole.

³⁶ Pavlenko and Nekrasov, *op. cit.*, p. 144 and V. A. Ryl'skii et al., *Elektroenergeticheskaiia* (Moscow, 1974), pp. 34-36, 176, 178. The latter source gives a slightly lower figure.

In assessing the future role of hydropower, it is essential to realize that, west of and inclusive of the Urals, close to half the economically exploitable power capacity is already installed or under construction. The rest is sorely needed for peaking, and the present capacity, too, may have to be devoted to that purpose. In addition, the multipurpose use of water basin schemes has meant that substantially less water is available for power generation than was originally projected. In 1970, the capacity factor (i.e., the percent of availability of power) of all hydrostations in the European U.S.S.R. reached less than 45 as against more than 54 in the Asiatic part of the country, with the difference doubtless increasing.

The Asiatic Soviet Union does boast enormous, unexploited water power potential. Yet about 55 percent of this stated potential is located north of latitude 60°, where a population of only two million is scattered over an area as large as the United States, in a forbidding region with continuous permafrost, where river runoff is extremely irregular, and where technology and construction experience from more southerly provinces do not suffice. Another 6 to 7 percent is represented by the Amur River, whose full utilization is precluded by the climate, restricting development to some of its tributaries. The remainder, however, still amounts to a 35 million to 38 million kilowatt potential installed capacity in Siberia and roughly the same in Central Asia. In the Siberian provinces, about 30 percent of this accessible potential is being exploited, and projects already under construction should bring this share close to 60 percent. Less than one-fifth of the Central Asian potential is utilized or is in the process of development, with irrigation and flood control, more than power generation, providing the primary rationale.

Only in East Siberia, and to a lesser extent in Central Asia, will hydroelectric stations continue to maintain their prominent role in electric power supply. Elsewhere, their share should decline rapidly in the forthcoming years. Multipurpose uses and the need for peak power will reduce hydro's contribution in the country's electricity output to well below one-tenth. One source estimates that in the European U.S.S.R., hydroplants, on the average, will be utilized for only about 2,000 hours per year (23 percent of the time) and in the Asiatic U.S.S.R., for about 4,000.

At the end of 1975, Soviet nuclear capacity reached 5.7 million kilowatts, 2.5 percent of all installed generating capacity and less than one-fifth of the capacity of installed American reactors. East of the Urals, abundant low cost coal and highly favorable hydroelectric sites have obviated the need for the nuclear alternative, at least in this century, but atomic electricity has become attractive throughout the European Soviet Union. Although investment per

KW capacity is significantly higher for nuclear stations, the total cost per kilowatt-hour, inclusive of interest charges, is reportedly below that at conventional thermal plants burning any kind of fuel west of the Volga. In the 1970-1975 period, atomic stations contributed some 11 percent of the increment to generating capacity in the European U.S.S.R. They will contribute perhaps one-third in the forthcoming 10 years, and total Soviet nuclear capacity should reach over 30 million KW, a more than five-fold increase.³⁷ The newest Soviet reactors of the water-cooled, graphite-moderated channel type have capacities of 1,000 megawatts. After a recent visit, leading British engineers in the field declared themselves deeply impressed by Soviet reactor technology.³⁸ The lead time for the commissioning of atomic plants in the U.S.S.R. seems to be much shorter than it is in the United States, and the confidence in the future of nuclear energy appears genuine.

It is important, however, to put the amount of fuel saved by the nuclear program into perspective. The 5.7 million KW nuclear capacity, generating perhaps 30 billion-32 billion KWH in 1975, saved only 9 million-10 million tons of standard fuel. Less than 70 million tons will be saved under the best of circumstances by 1985,³⁹ representing only 12 percent of projected power station demand and 3-4 percent of total energy consumption west of the Urals.⁴⁰ Apparently, the Russians also find it difficult to accelerate nuclear construction greatly, and atomic power cannot be expected to solve the country's energy problems in the next two decades.

CONCLUSION

Whatever the precise relationship between economic development and the control and use of energy may be, the mobilization of energy resources provides a vital underpinning of a country's economic and military strength. Today Soviet planners seem closer to the formulation and implementation of a comprehensive energy policy than the leadership of most Western nations. Such a policy demands complex, interconnected decisions on investment alternatives and fuel substitution and intersectoral and regional allocation to maximize overall advantage, which in-

³⁷ Computed as percent of capacity of the Unified European Grid. Data from *Ekonomicheskaiia gazeta*, no. 9 (February, 1976), p. 24; Pavlenko and Nekrasov, *op. cit.*, p. 198 and T. Shabad, "News Notes," *SG:RT*, February, 1976, pp. 136-37.

³⁸ *Financial Times*, November 7, 1975.

³⁹ With heat rates of 325 grams of SF per KWH in 1975 and 315 grams in 1985 and a 65-66 percent availability in 1975 and 70 percent in 1985. The 1980 plan is 325-328 grams. *Ekonomicheskaiia gazeta*, no. 12 (March, 1976), p. 1.

⁴⁰ In 1975, the Unified European Grid had a capacity of 150 million KW, with a planned capacity of 230 million KW in 1980. *Ekonomicheskaiia gazeta*, no. 9 (February, 1976), p. 24.

cludes the opportunity cost of fuels on the export market. And, unavoidably, these choices must be worked out for years ahead.

Soviet energy reserves are vast, but they are not cheap. Their exploitation demands very long lead times and an ever larger share of the nation's capital and manpower resources, material products and research effort. The U.S.S.R., with some East European assistance, is obviously able to develop its resources alone. To gain time, however, Soviet leaders are ready for Western and Japanese participation (though not ownership) on a large scale. For natural gas and coal, though not for oil, deliveries they are willing to make long-term commitments, and to some extent they have already done so. But the mounting anxiety over resources among Western industrial powers has not been lost on Soviet leaders. They are expected to place increasing value on their energy and other mineral riches and to keep the long-term goals of national security, self-sufficiency and full control over supplies foremost in their development plans.

Even with modern planning tools and increasingly sophisticated econometric training, however, substantial uncertainties concerning the optimum path of resource development remain and leave a relatively wide area in which regional and sectoral pressure groups can push their pet schemes. Still, in contrast to the erratic record of Western powers, Soviet planners win high marks for the long-range, purposeful and usually sound development and management of their energy resources. Such purposeful, long-range planning should continue to bear fruits. ■

THE SOVIET ECONOMY

(Continued from page 113)

term interruptions with little or no impact upon that long-term rate of progress? Let us consider some examples.

Recent studies have examined the livestock sector in some depth.¹¹ One must conclude that the balance between the generation of sufficient inputs on the one hand, and, on the other hand, placing sufficient quantities of meat on the market to meet rising consumer demand, is precarious. Indeed, this balance has been made substantially more precarious in light of the grain harvest disaster of 1975.

To take another example, consider the matter of food supplies in Soviet urban centers. The problem of guaranteeing year-round supplies of produce to

¹¹ See for example David M. Schoonover, "New Soviet Plan Stresses Slower Livestock Gains," *Foreign Agriculture*, vol. 14, no. 3 (January 19, 1975), pp. 2-4, 12; David M. Schoonover, "The Soviet Feed-Livestock Economy: Preliminary Findings on Performance and Trade Implications," in U.S. Department of Agriculture, *Prospects for Agricultural Trade with the U.S.S.R.* (Washington, D.C.: U.S.D.A., April, 1974), pp. 24-42.

Soviet cities is frequently discussed in the Soviet press. Nikita Khrushchev addressed himself to this problem in strong language almost 20 years ago.¹² Why, then does the problem persist? Although a fully satisfactory answer to this question would require far more research, we might speculate that the problem involves more than simply increasing output. There seems to be a need for better transportation, processing, storage and distribution. It is tempting to say that more investment is needed, although there are limits to the degree to which investment at the macro level will smother mistakes at the micro level. It may be that in this context and at the macro level, central planning performs well; at the micro level, it performs substantially less well; the latter, however, is what intensification is all about.

Soviet agriculture is in many respects moving along a traditional path. Substantial progress has been made and doubtless this progress will continue despite short-term interruptions. The important question, therefore, is whether short-term interruptions, whatever their cause (climatic reverses, bad management) can be constrained to a degree sufficient to minimize their damage to long-term progress and consistent with the rising demands of the population and minimum drains on foreign exchange reserves. ■

¹² For a discussion of this problem with particular reference to the case of Moscow, see Francis M. Leversedge and Robert C. Stuart, "Soviet Agricultural Restructure and Urban Markets," *Canadian Geographer*, vol. 19, no. 1 (1975), pp. 73-93.

THE ARAB-ISRAELI SECTOR

(Continued from page 108)

broglie according to his own wishes and therefore in no position to compromise. It was probably not surprising, therefore, that in his public statements in Damascus, Kosygin limited himself to remarks favoring Lebanon's unity and an end to the civil war. Similar sentiments were expressed also in the joint communiqué issued at the end of the visit. Perhaps the most remarkable feature of the document was the omission, in the context of the Lebanese situation, of any reference to the PLO.

It became evident a few days later, however, that Kosygin's circumspect behavior did not signal an endorsement of the Syrian military intervention in Lebanon. The extent of the Kremlin's annoyance with Asad was demonstrated on June 9, when, in an unusually strong statement, the Soviet government challenged Damascus' assertion that the introduction of Syrian troops was designed to stop the bloodshed in Lebanon. Not only has that objective not been achieved, the statement said, but "blood keeps flowing in an ever greater stream." Since the Lebanese war had the potential for expansion into a wider inter-

national conflict, Moscow called on all states to respect the country's independence and territorial integrity and summoned those directly involved "to cease fire immediately." In rediscovering the Palestinians, who have "carried on a courageous struggle for their legitimate rights," the U.S.S.R. deplored their "being drawn into the bloody, fratricidal war." In conclusion, the Kremlin reiterated its continuing interest in the affairs of the Middle East and expressed hope that "responsibility" would be demonstrated by all engaged in the conflict.

The message contained in the June 9 statement was clear and unmistakable. The Soviet government held Asad responsible for the escalation of the Lebanese conflict and threw its moral support behind the PLO and, by implication, behind the latter's Lebanese left-wing allies. As a result, relations between Moscow and Damascus chilled overnight but, not unexpectedly, no open break occurred. On the one hand, as indicated above, Syria is heavily dependent on the U.S.S.R. for the bulk of her weapons, other military supplies, and training. A decision to break off this tie would place Damascus in an untenable position vis-à-vis Israel as well as the other Arab states. Syria also owes the Soviet Union over \$400 million for military and economic aid. Insistence on immediate repayment would present the Syrian economy with insurmountable difficulties. On the other hand, the U.S.S.R., whose military presence had previously been terminated by Egypt, would find itself without any allies in the eastern Mediterranean were it to alienate Damascus completely.

However, even though, as in the case of Egypt, an open break is unlikely, there can be no doubt that in Syria the Kremlin has suffered another serious political setback. In the process, the Soviet government exposed once again the limits of its ability to influence the behavior of clients in situations where they consider their own vital interests to be at stake.

THE ARAB-ISRAELI DISPUTE

The Arab-Israeli issue is of overriding importance to the U.S.S.R. because Moscow correctly perceives it as the key to general international recognition of the legitimacy of Soviet interest in the Middle East. Unfortunately for the Kremlin, the events of 1975-1976 leave it little room for short-term optimism.

One of the major bones of contention between the Soviet Union and the United States, the Soviet Union and the Arabs, and the Soviet Union and Israel has been the problem of the Geneva peace conference. After the initial meeting in December, 1973, which the superpowers co-chaired, it has not been reconvened because of the interested parties' professed inability to reconcile their differences over procedural matters, like the seating of the PLO.

However, the real reasons for the lack of success lie elsewhere. Since the conference would give the Kremlin a direct voice in the future of the Middle East, only the U.S.S.R. has everything to gain and little to lose from its early convocation. The United States and Israel have been unwilling to subject themselves to the easily predictable Soviet-Arab pressure. Moreover, Kissinger has long attempted to settle the Arab-Israeli conflict without Moscow's active participation in order to prevent further expansion of Russian prestige and influence in the Middle East. Finally, many Arabs, too, have serious misgivings about Geneva, because a failure to obtain "meaningful" concessions would leave them no choice but to return to the military option—a course of action few of them are currently prepared to take.

As noted by this writer a year ago,³ Kissinger's failure to work out a disengagement agreement between Israel on the one hand and Egypt and Syria on the other in March, 1975, encouraged the Kremlin to mount a major diplomatic effort of its own. It aimed at creating a united Arab-Soviet front with which to confront the United States and Israel and force their return to Geneva. Largely because of Moscow's inability to reconcile inter-Arab differences, this attempt, too, had to be abandoned. In succeeding months, Soviet leaders made several intermittent but somewhat half-hearted efforts toward reconvening the conference, for the most part limiting themselves to public reminders about its desirability and propriety.

On August 28, 1975, it was announced that Jerusalem and Cairo would sign the Sinai disengagement agreement, which provided for the evacuation by Israel of a narrow land zone along the eastern shore of the Suez Canal and the Red Sea (including the Gidi and Mitla passes and the Abu Rudeis oil fields) in return for over \$2 billion in United States military and economic aid and the stationing of American observers in the above passes. The U.S.S.R. showed its displeasure at being shut out of the negotiations by staying away from the signing ceremonies and by criticizing several aspects of the accord. Soviet leaders were unhappy about Washington's assumption of a direct role in supervising the disengagement and noted that the agreement "evaded the essentials of the problem."⁴ While representing a setback for Moscow's diplomacy, the agreement was not the "watershed in the United States-Soviet struggle for influence in the Middle East" that some commentators believed. To merit such a distinction, the Sinai accord would have had to be followed by other, more far-

reaching agreements between Israel and Egypt as well as between Israel and Syria. Even in September, 1975, the chances for substantial new progress appeared exceedingly slim.

In any event, in his United Nations General Assembly speech of September 22, Kissinger attempted to sustain this diplomatic momentum by proposing an "informal gathering" of "key nations" (thus excluding the PLO) as a possible new approach to further progress in the Middle East. The proposal was described by American officials as an effort to spur peace moves either through direct Arab-Israeli talks or by means of a reconvened Geneva conference. In his speech the next day, Soviet Foreign Minister Andrei Gromyko remained silent on Kissinger's proposal but referred to Geneva as the "appropriate mechanism" and insisted on Palestinian participation in its deliberations. The reaction of most of the Arab governments was equally negative.

In the spring of 1976, it had become obvious that Kissinger's diplomatic efforts in the Middle East had reached a dead end. Even President Sadat, one of Kissinger's staunchest Arab supporters, concluded that "new solutions" had to be found and that a Geneva conference, with Palestinian representation, appeared to be the only way to break the Arab-Israeli impasse. With the outlook for United States diplomacy increasingly bleak, on April 28, the Soviet government launched another diplomatic offensive. Moscow again urged the resumption of the Geneva conference, but said that it should meet in two stages. The first would concern itself with not otherwise specified "organizational questions," to be followed by the search for peace during the second stage. As always, the PLO was to participate in both.⁵

The Soviet position on peace itself remained unchanged in 1975-1976. Moscow continued to insist on Israel's evacuation of all territories occupied in 1967; on international recognition of the "national rights" of the Palestinians, including their right to their own state (presumably on the West Bank and in Gaza); and on international guarantees of the independence and territorial integrity of all Middle Eastern states (thus meaning Israel as well).

It is doubtful that the Kremlin expected the United States to comply with its wishes. Rather, the attempt to capitalize on Washington's perceived diplomatic weakness was made, in part, to regain the Soviet initiative in the Middle East and to foster Soviet credibility with the Arabs.

The Soviet proposal was not accepted by the Ford administration and, in mid-1976, it appears unrealistic to expect any major changes in the Arab-Israeli impasse in the near future. The United States is facing an uncertain future in anticipation of the November elections and the likely end of the current Republican era. At the same time, the Arab world is fully

³ *Current History*, October, 1975.

⁴ *Pravda*, August 30, 1975.

⁵ It was noted in Washington, D.C., that the proposal was not new, having been advanced to and rejected by the Arabs in the spring of 1975.

consumed by efforts to resolve the highly intricate and dangerous Lebanese situation. As for the U.S.S.R., it has proved itself incapable of extracting concessions from its political adversaries or of controlling or influencing the actions of its clients. ■

SOVIET MILITARY CAPABILITIES

(Continued from page 128)

interceptors.²⁰ The MiG-25, the MiG-23 and its several versions, and the Su-19 aircraft (the first modern Soviet tactical aircraft to carry a weapons systems officer) preach the quality of these new warplanes. Improvements in quality and quantity demonstrate unequivocally that the Soviet command intends to eliminate deficiencies in tactical air power in Europe (and the Eurasian land mass), should it be committed to conventional operations, with the promise of newer aircraft for counter-air operations capable of better low-altitude performance and all-weather flying, and fitted out with a wide range of ECM equipment. For the first time, the Soviet Union has a capability for deep-ranging offensive air operations (bringing the United Kingdom within range of an "air threat"); no less significant is the development of military transport aviation, which can contribute to a rapid build-up in the European theater (and where AEROFLOT already "rotates" large numbers of men from GSFG to the Soviet Union and vice versa, all without any inconvenience to civil air services).²¹ This airlift capability has already served Soviet purposes handsomely in the Middle East and further afield in Africa, including Angola.

²⁰ For a recent summary of Soviet improvements, see "Air Power for the Pact," *Flight International*, June 5, 1976, pp. 1507-08, 1513, 1522, with drawing and details of BACKFIRE.

²¹ Soviet military airlift (*Voenno-transportnaya aviatsiya*) disposes of some 1,700 aircraft (800 AN-12's, with 30 AN-22 heavy-lift long-range freighters); the Il-76 four-jet transport is now coming into squadron service; the "civil" versions of the Il-76 assigned to AEROFLOT nevertheless carry all the necessary installations for a radar-controlled turret at the rear of the fuselage; the Il-86 wide-bodied jet transport is meanwhile under development. Soviet military airlift seems to have played a considerable role in the recent Angola operations.

²² British press reports on the figures released by Representative Les Aspin, May 11, 1976; these figures (based on CIA data) show the Soviet Navy sharply outspending the United States Navy on support ships and smaller surface combat units (a large proportional difference, \$2,500m. as against a United States expenditure of only \$200m.).

²³ On Soviet naval aviation, see Norman Pomar, "Soviet Aerospace Almanac," *Air Force*, March, 1976, pp. 69-75. It now appears that the Yak-36 embarked on the Soviet carrier *KIEV* is a new design and not a simple "follow-on" of a prototype designated FREEHAND and demonstrated earlier, an experimental VTOL machine flown in 1967.

²⁴ Captain J. W. Kehoe (USN), "Warships of the USA and the USSR: A Comparison," published in *Proceedings of the US Naval Institute* (1975) and reprinted in *Aviation and Marine International* (INTERINFO, Switzerland).

Drama, partly self-induced, has nevertheless gathered about the Soviet Navy, whose "share" of Soviet defense spending has reportedly remained constant at 18 percent between 1970 and 1975. Still another analysis insists that both United States and Soviet naval expenditures in the same period are more or less equal (\$10,000m., with a Soviet edge of only \$200m.) and with the Soviet Navy outspending its United States rival largely in support ships and small surface combat units.²²

Undoubtedly, the Soviet Navy is reaching out into the world's oceans and has already sent its first aircraft carrier to sea, the 40,000-ton *Kiev*, which took to the high seas on Soviet Navy Day, 1976. Two more of these carriers are being built, with a projected class of six ships. The very powerful KARA-class of guided missile cruisers is being enlarged; the KRESTA-class guided missile cruiser class is completed and the "handy, handsome and well armed" KRIVAK-class missile armed destroyer is being built up, with extensive modernization of the smaller gun destroyers and escorts.

The Soviet submarine fleet, already the largest in the world, is being improved with the addition of the new TANGO-class diesel-powered attack submarines (replacing the tried and tested FOXTROT-class). At the same time, the production rate of the nuclear-powered C-class has been stepped up to two a month (rather than three a year), all in a boat which houses the submarine-launched SS-N-7 anti-ship missile with a range of 30 miles.

The role of the Soviet naval air force, with 1,200 aircraft and some 50,000 men, appears to be growing. The addition of the BACKFIRE-B bomber into the naval inventory adds a very powerful anti-ship strike weapon, even as the VVS-VMF takes to sea with the Yak-36 V/STOL strike aircraft embarked on the carrier *Kiev*.²³ Further improvements include ships for afloat support, a class of large landing ships (ROPUCHA-class) and missile-armed fast attack craft.

These developments provide the Soviet Navy with increased flexibility, furnished by growing numbers of well-armed fast ships equipped with offensive and defensive missile systems, very efficient communications and electronic warfare capabilities. Compared with Western ships (and they have been so compared), Soviet surface combat units carry more gun and conventional ASW ordnance, plus anti-ship missile systems of greater range and destructive power.²⁴ What is surprising at first glance is that Soviet naval shipbuilding is below available shipyard facilities, but it proceeds at a steady pace. Modernization seems to command much attention, with new classes being brought in from time to time, with technologically advanced propulsion systems and ingenious weaponry. The recent worldwide naval exercises (OKEAN II, conducted in 1975) demonstrated a navy which

operated in all world oceans, under a central command system (with efficient ocean satellite surveillance) and the capability to maintain this two-way worldwide command and control facility, together with an extremely low frequency (ELF) system needed for the direction of its submarine-launched ballistic missile force.

There can be no doubt that the Soviet Union maintains the largest military establishment in the world and that it is growing. There are 4,800,000 men under arms, 2,378 strategic missiles (land- and sea-based), more than 40,000 tanks, 226 major naval combat units, 253 general purpose submarines (with others in reserve), some 60 nuclear-powered submarines, 2,600 air defense interceptors, 5,250 tactical aircraft (with 3,000 in reserve) and 135 long-range bombers (plus three squadrons of BACKFIRE-B's, 50 aircraft). As a rough measure, the Soviet Union disposes of 10,000 megatons as opposed to 4,000 for the United States. So the catalogue can continue, though it is questionable whether this is an accurate "measure" of force and capability or a guarantee of outright "superiority."

Certainly, measurable, definable and usable advantage in strategic weapons appears to be a Soviet objective and one to be pursued into the 1980's, backed by a powerful research and development program and not constrained as yet by the cost of high-technology programs. One significant shift in Soviet attitude may be that this advantage (or superiority, if you like) is no longer regarded as relative but as absolute and attainable on its own terms. As for "winning" in terms of nuclear war, this is coming to signify the survival of the Soviet Union as a potent military force, an effective economic system, and a cogent political entity—in these vital terms, nuclear cannot be treated as "unthinkable."

The phases of the Soviet military program suggest not one but a multiplicity of objectives: advantages across the board in strategic weapons, the diversification of offensive capability, the improvement of general purpose forces and an increase in their staying-power, together with developing military capabilities to support Soviet commitments at some distance from the Soviet periphery. Most, if not all, of these objectives bear the hallmark of superpower status, to which the Soviet Union has irreversibly arrived. In combination, they represent the diminution, if not the elimination, of unilateral United States advantage and essentially they provide the military weight that is regarded as the foundation of Soviet security at large and the domination of the Eurasian land mass in particular.

The catalogue of requirements is considerable. "The tactics of combined arms operations" must be studied, together with air combat tactics, air defense tactics and naval tactics, all with the aim of devising

"new methods" to utilize to the full the potentialities of modern weapons, to increase maneuverability and surprise, improve reconnaissance, electronic warfare and deception. Soviet command and control systems must be modernized to improve battlefield decision-making and greater reliability of communications systems. Not least, the education of the Soviet officer and the training of the Soviet soldier must be overhauled and modernized; the populace at large and the economy must be drawn more effectively into defense preparation and planning. Both Army General Kulikov and Major General M. Cherednichenko argue that the prime Soviet task is to shape a rigid and even outmoded system to the new weapons presently being introduced, to develop operational and administrative flexibility to meet and match the growing capabilities and diversity of military resources available to the Soviet command and the political leadership.

Over the past two decades, there has been a strangely regular periodization to the Soviet military program: begun in the mid-1950's, the military build-up passed through its own ten-year cycle, followed in the mid-1960's by a massive numerical expansion and qualitative improvement that is now beginning to show formidable results, with signs that a third—and most complex phase—is about to be launched, to bring men and machines into closer and more effective alignment. Clearly, the development cycle of modern weapons imposes its own chronology on the Soviet military program as it does elsewhere. Apparently we must take account not only of weapons development and "deployed military technology" but also of the revitalization of Soviet military thinking and the far-reaching rejuvenation (*obnovlenie*) of its command, thus bringing a sharpened intelligence to go with sharpened swords. This projected phase of the military build-up could prove to be the most demanding upon Soviet resources; it really tests the system and must performe show what natural limits operate on "performance." Today it is clear that performance is not all that it should be. ■

SOVIET-AMERICAN RELATIONS

(Continued from page 104)

an insistence on a quid pro quo. For example, in the SALT talks, obsessed with showing progress for domestic reasons, the administration has handicapped itself from the very beginning: as a basis for discussion and bargaining, it supplies the data for the American, as well as the Soviet, strength in missiles and bombers. By not insisting that Moscow provide information on its own force levels in these crucial areas, the administration denies itself a means of checking on Soviet veracity and seriousness. It also gives the Soviets unnecessary clues to the effectiveness or shortcomings

of the United States intelligence-gathering effort.

Although SALT I forestalled an arms race in ABM's, it has not brought peace, international stability or arms control one whit nearer. At best, it has set the stage for protracted bargaining on a possible slowdown of the pace (and expenditures) of the nuclear missile race. Preoccupation with SALT has resulted in neglect of American ties to Western Europe and Japan, and of relations with China.

Détente with the Soviet Union also calls for steadfastness and a sense of political priorities, neither of which has been notable in recent United States foreign policy. It also requires effective cooperation and coordination between the White House, on the one hand, and specialists in the Departments of State and Defense, the Joint Chiefs of Staff, the Arms Control and Disarmament Agency, and the Central Intelligence Agency, on the other.

The agreements that emerged from C.S.C.E. in July, 1975, were originally part of a package that entailed mutual reductions of conventional forces in Central Europe. But the MFR talks are bogged down in Vienna.

In addition, while there is no reason not to do business with the Soviet Union, the arrangements should be on a businesslike basis. The United States government should not subsidize private business, nor guarantee it against possible losses. The sooner private firms realize that they are at a definite disadvantage in dealing with Soviet state trading corporations, and the sooner they enlist government expertise in the negotiations, the more likely they are to conclude agreements that are economically as advantageous to the United States as to the Soviet Union. The Soviet Union is now a major borrower in Western money markets. It should not be granted preferential treatment, but should be required to pay the going commercial rate for its loans.

Finally, there is a paradox. Détente requires more attention to allies than adversaries. Only if the United States concentrates on improving relations with West Europe and Japan and on working to assure the stable and just functioning of an international economic order that also encompasses key nations of the third world will the Soviet Union come to realize that it stands to benefit more from cooperation than from fueling regional arms races and imperial rivalry. ■

SOVIET SOCIETY TODAY

(Continued from page 126)

thority, crave security and despise nonconformity. To be sure, these attitudes are extraordinarily wide-

spread in the Soviet Union and are not limited to what we usually call the middle classes. Soviet people have yet to develop contempt for middle class aspirations and ways of life, including security, privacy, shared consumption, and emotional exclusiveness. Indeed, it may not be an exaggeration to suggest that the proverbial, much maligned suburban house with the car in the garage and the various gadgets scattered around it and the typical American middle class leisure-time activities represent the aspirations of millions of Soviet people. We must remember that Soviet people, especially women, have yet to face a surfeit of consumer goods, privacy or leisure. Moreover, the officially fostered forms of communalism, participation in public life, lack of privacy, and a housing shortage have not contributed to the development of an appetite for communal living or alternatives to the nuclear family.

A CHANGE IN ATTITUDES

Soviet attitudes toward the automobile provide a good illustration of Soviet values. Once a totally unattainable item of luxury, the automobile has become in the last few years a coveted product no longer beyond the wildest dreams of at least a minority of the population. The automobile has become something worth striving for or dreaming of—a symbol of ease, comfort, modernity, social status and success. The official goal of making the automobile more widely accessible is an interesting mixture of pragmatism, inconsistency and residual ideological caution. Pragmatism is reflected in the decision to increase car production drastically and thereby to satisfy some of the popular demand. Inconsistency is shown by the associated neglect of supportive facilities, i.e., roads, gas stations, repair shops, parking lots. (Seventy percent of all roads in the U.S.S.R. are closed to traffic during the spring.) Thus the regime's commitment to the car is less than wholehearted; it is a grudging concession to "consumerism" and to the lurking belief that a truly great and modern society cannot get by without at least a few impressive traffic jams. There is, however, some unease about the rise of the automobile that is not limited to rational concern.¹⁸ This anxiety involves what Soviet sociologists call "the moral problems of motorization." It is not surprising that Soviet ideologues are uneasy about the contribution the private automobile might make to the development of individualistic tendencies. The car makes it easier for families, couples or individuals to remove themselves from the group, to isolate leisure-time activities from organized, collective forms of recreation. The subversive potential of the car also includes making people less dependent on public transportation, conjuring up illusions of free movement in space (within the obvious limits of the Soviet highway network). People might develop appetites

¹⁸ V. T. Yefimov and G. U. Mikerin; "Avtomobilizatsiya v razvitiyu sotsialisticheskoy obshchestvennosti," *Sotsiologicheskiye issledovaniya*, January, 1976.

for greater freedoms of movement (across the border, for example). Moreover, the need for, or the right to, freedom of movement could conceivably lead to a demand for other freedoms. In addition, an automobile represents a large investment of financial resources for the average citizen, the fruit of much planning, saving, and deferred gratifications. It is an expensive item of consumption that absorbs much of a citizen's psychic energy and interest and it may thereby result in his attention being diverted from the public realm.

There has been much speculation outside the Soviet Union about the impact of rising living standards and material expectations on social and political stability. It has been traditional in the West to equate prosperity with democracy and therefore to forecast the liberalization of Soviet society in the light of improved material conditions. Such forecasts have been based on the proposition that only after material needs are satisfied can spiritual needs arise. In a materially satisfied world, Soviet citizens would turn their attention from the stomach to the mind and heart. For the Western liberal observer, a combination of material well-being and harsh political controls is virtually inconceivable. While prosperity and harsh controls may indeed be uncongenial, for the time being widespread scarcities and material inequalities continue to characterize Soviet society and help to keep expectations, especially politically troublesome ones, under control. "Resignation is the characteristic Soviet reaction to the privileges of the high and mighty. In Russian history, it has long been that way, Russians say, and this is fatalistically accepted. The thing to do is to find a piece of action for yourself. . . ."¹⁹

Other circumstances may contribute to the passive acceptance of inequalities and scarcities. There may be some popular credit given to the official claim that Soviet society is a meritocracy in which the higher rewards go to the more deserving and the ablest. Such official justifications of inequality are strikingly similar to the American cultural tradition, shifting the emphasis from equality in regard to attainments and results to equality of opportunity. They imply that inequalities of condition (or result) are legitimate as long as opportunities to compete are equal.

Soviet inequalities are also accepted because less is known about them, because they are less visible. As a rule, Soviet elite groups do not consume conspicuously. They enjoy their privileges in seclusion; consumption is private and secretive. Privileges are relished and enjoyed to the fullest but not flaunted. It is perhaps also significant that none of the wealth is "unearned" in the sense it can be in capitalist societies, where people have so-called private incomes de-

riving from the ownership of property, or financial investments, rather than from actual work. In the Soviet Union, everybody works, the idle rich do not exist, and wealth cannot be passed on, to any significant degree, from one generation to another. People are more likely to accept inequalities when they seem less random or arbitrary, when they are (or are alleged to be) tied to some scheme, some principle, some higher purpose. In the Soviet Union, such a scheme or higher purpose is the alleged service to society, the contribution to the public good through some special skill, aptitude or excellence.

EXPECTATIONS, TRADITIONS AND THE POLITICAL ORDER

If (as many social scientists tend to believe) the level and type of society's expectations are major determinants of the stability of particular social systems, it is hardly surprising that the Soviet system has endured for almost six decades. It is fairly easy to explain the widespread acceptance of the socioeconomic inequalities and political hierarchies of the Soviet system. It is even less difficult to discover the social roots of this acceptance.

Political deprivations are tolerated, in part, because standards of comparison are lacking. The sense of deprivation in the political sphere is drastically reduced by ignorance. The cradle-to-grave misinformation offered to the Soviet masses is a great stabilizing force, especially when joined to the Soviet tradition of ignorance and suspicion of things foreign. For many historical reasons, the sources of popular conformity and resignation are deeply rooted and are not merely the product of decades of coercive policies and indoctrination. Even if Soviet official policies were to become more liberal, huge reservoirs of conformity, fear of disorder and anarchy, obedience and respect for authority would persist.

The peculiar quality of Soviet life and the attitudes it produces, the prevailing values and the political structure of Soviet society are generally uncongenial to the development of high expectations. One key to the success of the Soviet system, particularly its stability, is the regime's ability to control expectations, that is, to keep them relatively low. Objective conditions, and political regimentation in particular, help to structure personal aspirations and expectations. Choices and options are clear cut. People do not wonder about their identity, or reflect on their personal growth, or ponder self-consciously what to do with their lives. The framework for major choices is established far more clearly than it is in the United States. Even if Soviet people expect more, especially material goods and services, such expectations are usually well defined, limited and capable of satisfaction. ■

¹⁹ Smith *op. cit.*, p. 52.

THE MONTH IN REVIEW

A Current History chronology covering the most important events of August, 1976, to provide a day-by-day summary of world affairs.

INTERNATIONAL

International Olympic Games

Aug. 1—The Olympic Games at Montreal, Canada, end. During the course of the games, 30 nations withdrew from the games for political reasons.

International Terrorism

Aug. 11—4 people are killed and 20 are wounded in a grenade attack on passengers waiting to board an Israeli El Al jetliner at the airport in Istanbul, Turkey; Turkish police apparently halted the terrorist attempt to reach the plane and captured 2 of the terrorists.

Middle East

Aug. 2—Right-wing Lebanese Christian military commanders permit the International Red Cross to evacuate the wounded from the besieged Palestinian refugee camp, Tell Zaatar, in Lebanon.

Aug. 6—Right-wing Christian snipers fire on the wounded being evacuated from Tell Zaatar. The Red Cross ceases the evacuation.

Aug. 7—in Beirut, former Muslim Prime Minister Saeb Salam of Lebanon meets with the head of the Christian right-wing Phalange party, Pierre Gemayel, in an attempt to work out a cease-fire.

Aug. 8—Fighting continues in downtown Beirut and the suburbs as the attempt at a cease-fire in Lebanon fails.

Aug. 12—Christian forces seize Tell Zaatar.

Aug. 13—for the first time since the fighting began in Lebanon, Syria closes her border with Lebanon. It is reported that in the wake of the fall of Tell Zaatar, Syria is sending reinforcements to Lebanon to support the 20,000 Syrian troops already stationed there.

Aug. 14—in Lebanon, heavy fighting is reported east of Beirut along the Beirut-Damascus Highway.

Aug. 16—Syrian reinforcements take up positions 18 miles east of Beirut in the Bekaa mountain area and in the Christian town of Jezzin 20 miles south of Beirut.

Aug. 20—the leftist newspaper, *As Safir*, reports that Syrian President Suleiman Franjeh gave Lebanese President-elect Elias Sarkis until September 15 to implement the Syrian-Palestinian accord of July 29, the Damascus agreement.

Aug. 28—in Beirut, the Palestine Liberation Organization (PLO) orders all Palestinian men between the ages of 18 and 30 to report to army recruiting posts in the Muslim-controlled sector of Lebanon by August 31.

Aug. 29—the official newspaper of the Soviet Union's Communist party, *Pravda*, urges publicly for the first time that Syria withdraw her troops from Lebanon and support the Lebanese leftists and Palestinians.

Nonaligned Nations

Aug. 20—Leaders of 85 nonaligned nations conclude a 5-day meeting in Colombo, Sri Lanka, with warnings to the have nations to give more of their resources to the have-nots; the conference also deplores "imperialist aggression" in Korea.

United Nations

(See also *Namibia; U.S. Foreign Policy; Vietnam*)

Aug. 2—the United Nations Conference on the Law of the Sea opens at United Nations headquarters and is scheduled to close on September 17.

Aug. 7—the Greek government charges that a Turkish survey ship, the *Seismic I*, exploring for oil, has been cruising in Greek territorial waters.

Aug. 8—Turkey's Foreign Minister denies the Greek charge.

Aug. 13—at a Security Council meeting, Greek and Turkish foreign ministers dispute one another's claims to the right to explore for oil in the same area in the Aegean Sea.

Aug. 27—Representatives of 52 nations with little or no access to the sea threaten to block the adoption of a global maritime treaty unless their needs are considered.

Aug. 29—Greece and Turkey accept a Security Council resolution asking them to negotiate to end their dispute.

ARGENTINA

Aug. 19—in the 1st act of reprisal since the killing of terrorist Mario Roberto Santucho on July 19, leftist guerrillas kill General Omar C. Actis, former president of the state oil company, and Carlos Antonio Bergometti, deputy manager of a Fiat plant in Córdoba.

Aug. 20—in 2 separate incidents outside Buenos Aires, 46 people are killed by right-wing guerrillas in retaliation for yesterday's killing of General Actis.

AUSTRIA

Aug. 16—Chancellor Bruno Kreisky names 3 new ministers to his Cabinet and promotes Finance Minister Hannes Androsch to the post of Deputy Chancellor. The changes must be approved by the Socialist party's executive committee.

CANADA

Aug. 23—the Finance Ministry publishes its proposals to end the monopoly of the banking industry by 11 nationally chartered banks. Under the new proposals, foreign and other domestic banks would be allowed to maintain full banking services. Parliament must consider the proposals before June 30, 1977.

CHINA

Aug. 3—in Peking nearly 6 million people continue to live in the streets in anticipation of further earthquakes.

DENMARK

Aug. 21—Parliament imposes new taxes to cut consumer spending. Cigarettes will cost \$2 a pack and liquor will cost up to \$20 a bottle.

EGYPT

Aug. 8—in Cairo, 2 bombs explode in a government office building; 14 people are wounded. General Hassan Abu Basha, assistant minister of the interior, blames Libyan

President Muammar el-Qaddafi for the terrorist actions. Aug. 21—Finance ministers of Egypt, Saudi Arabia, Kuwait, Qatar and the United Arab Emirates establish a \$2-billion fund to assist Egypt with development projects.

Aug. 23—At Cairo airport, a plane carrying 100 people is hijacked by Arab guerrillas. Government troops recapture the plane at Luxor airport in southern Egypt several hours later. The government accuses Libyan President Qaddafi of plotting the hijacking.

Aug. 25—The People's Assembly unanimously nominates President Anwar Sadat for a 2d 6-year term.

FINLAND

(See U.S., Foreign Policy)

FRANCE

(See also Korea, South)

Aug. 12—The franc drops to a 30-month low, reaching the equivalent of U.S. \$20.

Aug. 25—The Cabinet announces its plans to complete the sale of a nuclear reprocessing plant to Pakistan, despite U.S. objections.

Premier Jacques Chirac, head of the Gaullist party, submits his resignation to President Valéry Giscard d'Estaing. President Giscard accepts his resignation and names Foreign Trade Minister Raymond Barre, an independent, non-party man, to replace him. Chirac claims he lacked sufficient authority to perform effectively.

Aug. 27—Premier Barre names a new Cabinet, composed primarily of Gaullists. Barre will act as Premier and Minister of Finance.

GERMANY, DEMOCRATIC REPUBLIC OF (East)

Aug. 9—A civil court sentences a former Nazi SS officer to life in prison for murdering an unknown number of Soviet citizens and for taking part in the execution of at least 4,000 people during World War II.

GERMANY, FEDERAL REPUBLIC OF (West)

(See Greece)

GREECE

(See also Intl., U.N.)

Aug. 20—An Athens court refuses to extradite to West Germany a German fugitive, the terrorist Rolf Pohle, because he had originally been jailed for political reasons. A German government spokesman says that "the whole question of terrorism has to be approached on a new international level."

INDIA

Aug. 10—Parliament convenes to consider constitutional amendments that would give Prime Minister Indira Gandhi additional powers. Most of the opposition boycotts the session.

IRAN

(See also U.S., Foreign Policy)

Aug. 7—In Teheran after a 2-day meeting of the Iran-American Joint Commission, U.S. Secretary of State Henry Kissinger and Iranian Economics Minister Hushang Ansary issue a joint communiqué announcing Iran's intention to purchase \$10-billion worth of military equipment from the U.S. over the next 6 years.

Aug. 28—3 American employees of Rockwell International are killed in an ambush by terrorists, believed to be members of the "Islamic Marxists."

IRELAND

Aug. 31—In an address to Parliament, Prime Minister Liam Cosgrave proposes emergency procedures to deal with the rising terrorist activities of the Irish Republican Army (IRA). He cites the death last month of the British Ambassador to Ireland by terrorists.

ISRAEL

(See also Intl., Intl Terrorism)

Aug. 1—An 8 percent value-added tax goes into effect on products in the Israeli-occupied West Bank area. Merchants close their shops in protest.

Aug. 21—In Nablus in the Israeli-held West Bank area, merchants end their 20-day strike that protested the value-added tax. The shops reopen but the merchants still refuse to pay the tax.

ITALY

Aug. 4—Prime Minister Giulio Andreotti presents his economic program to Parliament.

Aug. 7—In Rome, the Communists form a coalition with the Socialists and Social Democrats; this enables them to take control of the Rome city government from the Christian Democrats. Communists now control the administration of every major Italian city.

Aug. 11—The minority government of Prime Minister Andreotti is approved by both houses of Parliament after the Communist party agrees to abstain from voting in the Chamber of Deputies.

JAPAN

Aug. 2—Hiro Hiyama, former board chairman of the Marubeni Corporation, is officially charged with channeling illegal payments from the U.S. Lockheed Aircraft Corporation to former Prime Minister Kakuei Tanaka.

Aug. 5—Reversing a district court ruling made 35 months ago, the High Court rules that it is legal for the country to maintain military forces.

Aug. 16—Former Prime Minister Tanaka and 3 businessmen are indicted on charges of accepting \$1.6 million in bribes from Lockheed.

Aug. 21—Former Transportation Minister Tomisaburo Hashimoto is arrested and charged with accepting money from the Lockheed corporation. He is the 18th person arrested in connection with the Lockheed scandal.

Aug. 23—Deputy Prime Minister Takeo Fukuda, the leading rival of Prime Minister Takeo Miki in the Liberal-Democratic party, calls for Miki's resignation before the upcoming general elections, which must be held before December 9.

Aug. 24—Nearly 65 percent of the parliamentary members of the Liberal-Democratic party call unofficially for the ouster of Prime Minister Miki.

KENYA

Aug. 7—President Jomo Kenyatta and Ugandan President Idi Amin agree to resume normal diplomatic and trade relations, to end the killing of Kenyans in Uganda and to withdraw "any troops stationed at the common border."

KOREA, REPUBLIC OF (South)

(See also U.S., Foreign Policy)

Aug. 4—On his return from Seoul, French Minister for Foreign Trade Raymond Barre announces that France is negotiating terms with the South Korean government to sell it additional nuclear power stations. He also reveals

that France has agreed to guarantee the financing of the stations.

KUWAIT

Aug. 29—The Kuwait Cabinet resigns in a dispute with Parliament; Sheik Sabah al-Salem al-Sabah dissolves Parliament by decree and suspends articles of the Constitution dealing with freedom of the press.

LIBYA

(See *Egypt*)

MADAGASCAR

Aug. 21—President Didier Ratsiraka names Justin Rakotonaina as Prime Minister to succeed Lieutenant Colonel Joel Rakotomalala, who was killed in a helicopter accident in July. Ratsiraka also appoints 4 new Cabinet members.

MEXICO

Aug. 11—In Mexico City, guerrillas make an unsuccessful attempt to kidnap Margarita Lopez Portillo, the sister of President-elect José Lopez Portillo. 3 people are killed in the attempt, including guerrilla leader David Sarmiento Jimenez, head of the Communist League 23d September.

MOZAMBIQUE

(See *Rhodesia*)

NETHERLANDS

Aug. 26—Following the release of a report by a 3-member government commission criticizing his "unacceptable" relationship with the U.S. Lockheed Aircraft Corporation, Prince Bernhard resigns from all his military and business positions. In an address to Parliament, Prime Minister Joop M. den Uyl says: "Although no evidence has been found of any influence by the Prince on the procurement policy examined, the Prince's actions have damaged the national interest."

Aug. 30—Parliament votes 148 to 2 against a Pacifist Socialist party resolution to prosecute Prince Bernhard for his relationship with Lockheed officials.

PAKISTAN

(See *France; U.S., Foreign Policy*)

PHILIPPINES

Aug. 17—An earthquake registering 7.8 on the Richter scale followed by tidal waves devastates the coastline of the island of Mindanao. 1,744 people are killed; 2,094 are reported missing; nearly 28,000 people are left homeless.

Aug. 26—Communist guerrilla leader of the New People's Army Bernabe Buscayno and 9 others are captured by government security forces. President Ferdinand E. Marcos says that Buscayno's capture "just about eliminates the New People's Army."

Aug. 27—in a news conference, Marcos says that he will continue martial law rule despite the capture of 25 rebel leaders.

PORUGAL

Aug. 11—The National Assembly approves the government's economic and political reform program.

Former President António de Spinola returns to Portugal from a self-imposed exile. He is arrested on his arrival and taken to a military prison.

Aug. 12—Spinola is released from prison on the authority of President General António Ramalho Eanes, acting as

the Chief of Staff of the Portuguese Armed Forces.

Aug. 13—The U.S. government grants an additional \$25 million in economic and social aid.

RHODESIA

Aug. 8—In fighting 130 miles east of Salisbury, 5 white Rhodesian army soldiers are killed in an artillery attack by Mozambican troops.

In a communiqué from Salisbury, military officials indicate for the 1st time that Cuban troops are fighting alongside Tanzanian troops and Soviet military advisers.

Aug. 10—A government spokesman says that Rhodesian forces crossed into Mozambique and attacked a black nationalist guerrilla base near Umtali on August 8. 300 people are reported killed. The raid is believed to be a retaliation for an earlier attack that same day on a Rhodesian army base in which several soldiers were killed.

Aug. 13—South African Minister for Foreign Affairs Hilgard Muller pledges his government's support for U.S. Secretary of State Henry Kissinger's proposal for a negotiated settlement in Rhodesia. Britain, South Africa and the black African states would join in the negotiations.

Aug. 20—The U.N. High Commission for Refugees reports that Rhodesian troops "almost completely destroyed" a U.N.-based refugee camp in Mozambique in a raid on August 8. The camp housed 8,000 black Rhodesian refugees. The Salisbury government claims the raid involved a black nationalist guerrilla stronghold. The Mozambique government claims 618 people were killed in the raid; the Rhodesians say 300 guerrillas were killed.

Aug. 23—*The New York Times* reports the formation of a new black Rhodesian nationalist party headed by Robert Mugabe, who is in self-imposed exile in Mozambique.

SOUTH AFRICA

(See also *Rhodesia; U.S., Foreign Policy*)

Aug. 2—in Soweto, a black suburb of Johannesburg, students end their boycott and return to classes.

Aug. 4—Police open fire as black students attempt to break through a police barricade to get to Johannesburg to protest the arrest of students during the rioting 7 weeks ago.

Aug. 5—Police again turn back black demonstrators, estimated at about 5,000, as they attempt to cross police barricades and march on Johannesburg.

Aug. 6—After the 3d day of black student unrest, the police are put on a national alert.

Aug. 13—in an address to the ruling National party, Foreign Minister Hilgard Muller concedes that the government will have to change its policies toward black South Africans.

Aug. 19—in Port Elizabeth, police open fire on a crowd of blacks who are attacking 4 factories; 14 are killed and 28 wounded.

Aug. 20—Justice Minister James T. Kruger announces government concessions to urban blacks that will give them unrestricted title to land. They were previously limited to 30-year leaseholds.

Aug. 23—Black workers in Johannesburg and the outlying areas begin a 3-day work stoppage. The strike is reportedly organized by the African National Congress, a black resistance group that went underground in 1960 when the government banned it.

In Soweto, black youths stone trains and buses and harass workers in their effort to enforce the black workers' boycott. The absenteeism rate in Johannesburg among black workers is estimated at 80 percent.

Aug. 24—in Soweto, Zulu tribesmen attack black demon-

strators who have been harassing black workers. The Zulus' retaliation is apparently encouraged by white officials and employers.

Aug. 25—Zulu vigilantes continue their rampage in Soweto. By evening, police manage to round up the Zulus and confine them to their quarters.

Aug. 28—Chief Gatsha Buthelezi of Kwazulu (the home-land of 4.8 million Zulus) accuses the police of inciting the fighting among blacks in Soweto in which 21 people were killed.

Aug. 30—Continuing violence in Soweto township brings the death toll to 42 in the last week.

Namibia (South-West Africa)

(See also *Intl., U.N.*)

Aug. 18—In an attempt to comply with a ruling of the United Nations Council for Namibia, a constitutional committee in Windhoek announces plans for a multiracial government to take over from the existing authorities to administer the country when it achieves independence on December 31, 1978.

Aug. 20—in the United Nations, the Council for Namibia rejects the proposals of the South-West Africa constitutional committee, saying that the plans do not allow for self-determination and independence. The Council for Namibia asks the Security Council to consider appropriate measures for South Africa when the August 31 deadline for compliance runs out.

Aug. 29—*The Sunday Times* of Johannesburg reports that the South African government will agree to elections in the territory before the December 31, 1978, date for independence. International supervisors will be permitted to oversee the election. The South African government has until August 31 to come up with procedures satisfactory to the U.N.; if U.N. requirements are not met, the Security Council will impose sanctions against South Africa.

Aug. 31—The U.N. Security Council meets on the Namibian question.

Black African officials request the Security Council to impose sanctions on South Africa to compel her to give up control of Namibia.

SPAIN

Aug. 25—In a royal decree, King Juan Carlos II forbids military men to take part in any political party or activity.

SUDAN

Aug. 4—The Sudanese radio reports the execution by firing squad of 81 people who were convicted of taking part in an attempted coup d'état July 2.

Aug. 5—17 more people, including Brigadier General Mohammed Nur Saeed, are executed for their role in the July 2 coup. 210 people are still on trial.

SYRIA

(See also *Intl., Middle East*)

Aug. 1—Prime Minister Mahmoud al-Ayubi resigns; President Hafez al-Asad appoints Major General Abdel Rahman Khleifawi, a Sunni Muslim, to replace Ayubi.

Aug. 8—The new Cabinet is sworn in; Abdel Halim Khaddam is reappointed as foreign minister.

TAIWAN

(See *U.S., Foreign Policy*)

THAILAND

(See also *Vietnam*)

Aug. 15—Former strongman Field Marshal Praphas Charusathien returns secretly from exile.

Aug. 19—A special session of the Cabinet orders Charusathien to leave the country within 7 days.

Students in Bangkok stage a rally to protest the marshal's presence in the country.

Aug. 21—The government of Prime Minister Seni Pramoj announces that Field Marshal Charusathien has left for Taiwan.

TRINIDAD AND TOBAGO

Aug. 1—The former British colony achieves statehood. Governor General Sir Ellis Clarke becomes the 1st President of the republic of Trinidad and Tobago until elections are held in September.

TURKEY

(See *Intl., Intl Terrorism, U.N.*)

UGANDA

(See also *Kenya*)

Aug. 1—The Kenyan newspaper *Sunday Nation* reports that President Idi Amin has arrested several high ranking army officers to prevent a coup d'état.

U.S.S.R.

(See also *Intl., Middle East*)

Aug. 3—Communist Party Secretary Leonid I. Brezhnev meets with Romanian President Nicolae Ceausescu at a retreat on the Crimean.

Aug. 24—After 48 days in the orbiting Salyut 5 space station, 2 astronauts aboard the Soyuz 21 descent module land safely in Kazakhstan.

Aug. 30—In London, *Jane's Fighting Ships* reports that the Soviet Union has 3 times as many submarines as the United States.

Aug. 31—It is reported in London that Premier Aleksei Kosygin suffered a stroke and nearly drowned while vacationing.

UNITED KINGDOM

Great Britain

Aug. 13—The Department of Trade announces that the trade deficit for the month of July is \$943.2 million, the 2d worse deficit in the nation's history.

Aug. 18—British Airways agrees in principle to buy 6 long-range TriStar Jetliners, an advanced version of the TriStar jumbo jet, from the U.S. Lockheed Aircraft Corporation.

Aug. 24—Prime Minister James Callaghan holds an emergency meeting of the Cabinet to consider action in light of the severe drought.

The Employment Ministry reports the country's unemployment rate for July at 1.5 million workers, 6.4 percent of the labor force.

Aug. 27—The European Commission on Human Rights releases a report that accuses Britain of torturing suspected terrorists in Northern Ireland.

Northern Ireland

Aug. 14—Nearly 15,000 women assemble in Andersontown to mourn the deaths of 3 children killed on August 10 in gunfire between Catholics and Protestants.

UNITED STATES

Administration

Aug. 2—According to Department of Justice officials, the department is broadening its investigation into allegations

of burglaries of private individuals' homes and offices by agents of the Federal Bureau of Investigation (FBI) during the last 5 years.

Aug. 3—In a message to Congress, President Gerald Ford asks for new legislation requiring American firms to report all substantial payments they make in foreign countries, "whether proper or improper," which are designed to aid their sales to foreign governments.

According to documents released by the Central Intelligence Agency (CIA), the agency was considering the purchase of enough LSD, the hallucinogenic drug, for 1 million doses for use in its experiments with animals and human beings.

Aug. 5—According to some officials who have read the report, a classified report of the Government Accounting Office reveals that government nuclear facilities cannot account for more than 2 tons of plutonium and uranium that could be used for nuclear bombs. Representative John Dingle (D., Mich.), who requested the survey, says that only 36 pounds of enriched uranium or 13 pounds of plutonium are needed to make a nuclear weapon.

Aug. 8—FBI director Clarence Kelley admits that he was deliberately "deceived" by underlings who concealed the scope of illegal burglaries by FBI agents from him.

Aug. 9—By a 78-6 vote, with 16 abstentions, the Senate confirms H. Guyford Stever as director of the new Office of Science and Technology Policy; Stever will serve as science adviser to President Gerald Ford.

Aug. 11—FBI director Kelley announces an extensive internal reorganization of the FBI.

Aug. 18—Supreme Court Justice Thurgood Marshall refuses to halt the sale of off-shore Atlantic Ocean oil leases by the government; the sale of the leases was temporarily blocked by federal district court Judge Jack B. Weinstein in Brooklyn August 13. On August 16, the Second Circuit Court of Appeals lifted the preliminary injunction.

The former head of the Federal Bureau of Investigation's intelligence division, Edward Miller, says that acting FBI director L. Patrick Gray 3d authorized FBI agents to burglarize domestic radical and terrorist organizations.

Civil Rights

Aug. 4—The U.S. District Court of Appeals for the Sixth Circuit orders federal district Judge Robert De Mascio to attempt to desegregate Detroit school regions involving 83,000 pupils, under Supreme Court guidelines.

Aug. 17—The U.S. Court of Appeals for the First Circuit rules that the action of federal district Judge W. Arthur Garrity, Jr., placing racially embroiled South Boston High School in federal receivership is justified; it rules that the school should be returned to local officials as soon as it is possible to do so safely.

Aug. 23—The U.S. Court of Appeals for the Sixth Circuit affirms the court-ordered busing desegregation plan for Louisville, Kentucky, approved on July 30, 1975, by federal district court Judge James Gordon.

Aug. 31—A federal district court in Cleveland orders the city to prepare a plan to desegregate the city's schools within 60 days.

Economy

Aug. 25—The General Motors Corporation announces an average rise of 5.9 percent or \$338 per car in the price of its new line of 1977 cars.

Aug. 27—The Commerce Department reports that its

index of leading economic indicators rose 0.5 percent in July; this was the 17th consecutive monthly rise.

Aug. 30—In response to customer pressure, the U.S. Steel Company withdraws the projected 4.5 percent price rise announced August 13; other steel companies follow.

Foreign Policy

(See also *Iran; Rhodesia*)

Aug. 1—Senator Hubert Humphrey (D., Minn.), the chairman of the subcommittee on foreign assistance of the Senate Foreign Relations Committee, says a committee study shows that "U.S. arms sales to Iran, totaling \$10 billion since 1972, have been out of control." He says that President Richard Nixon made the decision to "sell Iran any conventional weapons systems that it wanted" and that as a result the sales were made without a close policy review.

In a journey arranged by the United Nations, 49 U.S. citizens and their dependents (23 American passport-holders and 26 dependents) fly from Saigon to Bangkok; these were virtually the last Americans in Vietnam.

Aug. 3—Finland's President Urho Kekkonen meets with President Gerald Ford and Secretary of State Henry Kissinger at the White House.

Aug. 4—Secretary of State Henry Kissinger arrives in London to begin an 8-day, 6-nation trip to Europe and South Asia.

Aug. 8—Secretary Kissinger meets Pakistani Prime Minister Zulfikar Ali Bhutto in Lahore, Pakistan, for talks about Pakistan's determination to construct a French-designed nuclear reprocessing plant.

Aug. 9—At an airport conference in Lahore, Kissinger says that Pakistani Prime Minister Bhutto has agreed to work out a compromise that would make it impossible for Pakistan to divert nuclear material into nuclear explosives.

Aug. 12—Secretary Kissinger and South African Ambassador R. F. Botha confer in Washington about South African plans for Namibia.

Aug. 18—While trimming tree branches near Panmunjom in the demilitarized zone between North and South Korea under U.N. Command, 2 American officers are killed and 4 men are wounded and 5 South Korean soldiers are wounded by North Korean soldiers.

President Ford warns that North Korea will be responsible for "the consequences" of the killing of 2 American officers in the demilitarized zone.

Aug. 20—Secretary of State Kissinger asserts that the United States "absolutely cannot and will not accept" the "premeditated act of murder" of 2 American officers in the Panmunjom truce zone; he says the United States is demanding "explanations and reparations" for the incident.

Aug. 21—The U.S. intensifies its military preparedness in Korea; 2 additional squadrons of jet fighter bombers are also ordered into that area.

Aug. 22—North Korean President Kim Il Sung calls the slaying of 2 American officers "regretful"; he says that both sides should take steps to prevent a recurrence of such incidents.

Aug. 23—The U.S. Department of State calls North Korean President Kim Il Sung's note expressing regrets "a positive step."

Aug. 27—Secretary of State Kissinger tells the Senate Foreign Relations subcommittee that beginning in 1979 the U.S. plans to sell 160 F-16 fighter planes to Iran.

Aug. 28—At the 381st meeting of the Military Armistice Commission at Panmunjom, the U.S. agrees to consider

the partition of the Panmunjom truce village into 2 sectors; it demands that the safety of U.S. personnel stationed in the joint security area be firmly guaranteed.

Aug. 29—Confirming a series of CIA reports, U.S. officials note that Taiwan is beginning to reprocess spent nuclear reactor fuel to acquire a stockpile of plutonium that could be used to make nuclear weapons.

Aug. 31—In a speech in Philadelphia, Kissinger asks black African leaders to await the outcome of the U.S.-British negotiations with white minority governments in Rhodesia and Namibia.

In Washington, D.C., Fred C. Iklé, director of the Arms Control and Disarmament Agency, says that the Soviet Union is attempting to alter the nuclear weapons balance by deploying the SS-X-20, an intercontinental ballistic missile, in East Europe.

Labor and Industry

Aug. 12—Miners begin to return to work in West Virginia; this is a major break in the wildcat strike that has idled miners in 6 states.

Aug. 16—Almost all striking soft coal miners return to work.

Aug. 28—The 130-day strike of 22,000 rubber workers of the Goodyear Tire and Rubber Company ends. Firestone Tire and Rubber Company and Armstrong Rubber Company employees are expected to vote on the new labor agreement shortly; no agreement has been reached with other rubber companies.

Legislation

Aug. 4—President Gerald Ford signs the House Authorization Act that extends programs of the Department of Housing and Urban Development through fiscal 1977; among other features, the measure provides for rental subsidies in low-income housing projects, loans for housing the elderly and subsidies for operation of public housing.

By a 316-85 vote, the House overrides President Ford's July 3 veto of a measure that reforms coal leasing to minimize speculation and increases federal and state shares of royalties from the private development of minerals and coal on federal land. The Senate overrode the veto by a 75-18 vote yesterday; this is the 10th time that President Ford's veto has been overridden.

Aug. 12—President Ford signs a bill limiting the cases in which 3-judge federal courts must be empaneled; the measure will reduce the workload of the federal judiciary, including the Supreme Court.

Aug. 25—The House Ethics Committee issues congressional subpoenas for Columbia Broadcasting System newsman Daniel Schorr and 3 other journalists to compel their appearance at a hearing into the unauthorized disclosure of the report of the Pike Committee on the Central Intelligence Agency. 18 former committee staff members are also subpoenaed.

Aug. 30—The Subcommittee on Long-Term Care of the Senate Special Committee on Aging makes public a report of "abysmal" administration of the Medicaid program in 8 cities.

The Senate votes 69 to 16 to approve legislation preserving a 26.5-mile stretch of North Carolina's New River as part of the National Wild and Scenic Rivers System. The measure goes to the White House.

Politics

Aug. 3—The Federal Election Commission asks Congress to approve regulations covering all areas of the Election Reform Act; the regulations become effective in 30 days unless Congress vetoes any of them.

Aug. 18—President Gerald R. Ford wins the Republican nomination for President over former California Governor Ronald Reagan at the Republican party's National Convention in Kansas City, Missouri, on the first ballot, with 57 votes more than the 1,130 votes necessary for nomination.

Aug. 19—President Ford names Senator Robert J. Dole (R., Kans.) as his vice presidential running mate; the convention approves his choice.

In his acceptance speech, President Ford challenges Democratic candidate Jimmy Carter to debate election issues on television. Carter accepts.

Aug. 24—Addressing the convention of the American Legion in Seattle, Washington, the Democratic candidate for President, Jimmy Carter, says he would issue pardons to Vietnam War draft resisters should he be elected President.

President Ford proposes that his televised campaign debates with Jimmy Carter should begin in about 2 weeks.

Aug. 25—President Ford announces that James Baker 3d is replacing Rogers C. B. Morton as chairman of the President Ford Committee; Morton becomes chairman of a new campaign steering committee.

Aug. 27—Former Georgia Governor Lester Maddox is chosen as its candidate for the presidency by the American Independent party at its convention in Chicago.

Aug. 28—Reports filed with the Federal Election Commission show that 14 presidential candidates of both political parties spent over \$70 million on their preconvention campaigns, up considerably over 1972.

Aug. 30—The Federal Election Commission rules that the League of Women Voters may finance televised debates between President Ford and Democratic presidential candidate Jimmy Carter without violating its ban on private campaign contributions.

Science and Space

Aug. 13—A soil sample test for life on Mars by the Viking I landing craft proves negative.

Aug. 23—A 2d test for organic material on Mars proves negative.

Aug. 28—Under the leadership of Har Gobind Khorana, scientists at the Massachusetts Institute of Technology report the successful synthesis of a complete and functioning gene, a copy of a natural bacterial gene; the gene was constructed from off-the-shelf chemicals but functioned naturally when used in the bacterial cell.

VATICAN

Aug. 8—In Rome, Pope Paul addresses by satellite the closing session of the 41st International Eucharistic Congress in Philadelphia, Pa.

VIETNAM

(See also *U.S., Foreign Policy*)

Aug. 2—Saigon Radio announces that the government is drafting men in the southern section of the country.

Aug. 6—The government and Thailand agree to establish diplomatic relations.

Aug. 14—Prime Minister Pham Van Dong arrives in Sri Lanka for the conference of nonaligned countries. This is the 1st major international conference attended by a representative of a reunited Vietnam.

Aug. 20—The government applies for membership in the United Nations.

AVAILABLE FROM Current History

Academic Year 1976-1977

- Women in America (5/76)
- Criminal Justice in America (6/76)
- Reforming the Criminal Justice System (7-8/76)
- The People's Republic of China, 1976 (9/76)
- The Soviet Union, 1976 (10/76)

- Africa, 1976 (11/76)
- Southeast Asia, 1976 (12/76)
- The Middle East, 1977 (1/77)
- Latin America, 1977 (2/77)
- Mexico, 1977 (3/77)
- Canada, 1977 (4/77)

Still Available

AREA STUDIES

- Scandinavia and the Low Countries (4/76)
- Nations of East Europe (3/76)
- Latin America, 1976 (2/76)
- The Middle East, 1976 (1/76)
- Southeast Asia, 1975 (12/75)
- The Soviet Union, 1975 (10/75)
- The People's Republic of China, 1975 (9/75)
- World Food Resources (6/75)
- Nations of Africa (5/75)
- Japan in the Seventies (4/75)
- Nations of West Europe (3/75)
- The People's Republic of China, 1974 (9/74)
- Britain in the Seventies, 1974 (3/74)
- Nations of the Pacific, 1973 (11/73)

AMERICAN ISSUES

- Women in America (5/76)
- The American Economy (11/75)
- The American Indian (12/74)
- Changing Black America (11/74)
- American Political Reform (8/74)
- The American Two-Party System (7/74)
- The American Presidency (6/74)
- Social Welfare in America Tomorrow (8/73)
- American Social Welfare in Perspective (7/73)
- The Dimensions of Poverty in America (6/73)
- Urban America (11/70)
- Options for a Cleaner America (8/70)
- America's Polluted Environment (7/70)
- U.S. Resources: A Tally Sheet (6/70)

CURRENT HISTORY BINDER

A sturdy, hard-cover binder at a reasonable cost will protect *Current History* for permanent reference. Each issue can be placed in the binder every month. The easy-to-use binder holds 12 issues securely in place over flexible steel rods.

ONE-YEAR SUBSCRIPTION: \$13.50. **TWO-YEAR SUBSCRIPTION:** \$26.50.

NINE-MONTH SUBSCRIPTION: \$10.95.

SEVEN-MONTH SUBSCRIPTION: \$7.95.

SPECIFIC ISSUE PRICE: \$1.50 per copy; 10 or more of the same issue, \$1.25 per copy.

BINDER PRICE: \$4.95.

BULK SUBSCRIPTIONS (in orders of 10 subscriptions or more mailed to the same address)

1-year subscriptions: for 10 or more subscriptions: \$10.95 each.

9-month subscriptions: for 10 or more subscriptions: \$8.95 each.

7-month subscriptions: for 10 or more subscriptions: \$7.50 each.

RATES FOR COPIES MORE THAN TWO YEARS OLD: \$1.75 per copy; 5 or more copies, \$1.50 per copy. *Current History* has a small inventory of many issues from 1941.

CURRENT HISTORY • 4225 Main Street • Philadelphia, Pa. 19127

SPECIAL SUBSCRIPTION OFFER: your choice of 3 free issues.

- 1 year \$13.50, plus 3 free issues marked above.
- 2 years \$26.50, plus 3 free issues marked above.
- Please send me the issues I have indicated above in the quantities I have marked.
- Send me 1-year subscriptions. Send me 9-month subscriptions.
- Send me 7-month subscriptions.

CURRENT HISTORY BINDER

- Current History Binders at \$4.95 each.

Name

Address

City State Zip Code

Check enclosed. Bill me. Add \$1.00 per year for Canada; \$1.50 per year for foreign.

All these offers are good only on orders mailed directly to the publisher.

Specific issue price and bulk subscriptions based on a single mailing address for all issues ordered.

6 2-77 RDM 2-13-76
AMBASSADOR COLLEGE
LIBRARY PERIODICALS